

Living Heritage: Re-imagining Wooden Crib Grain Elevators in Saskatchewan

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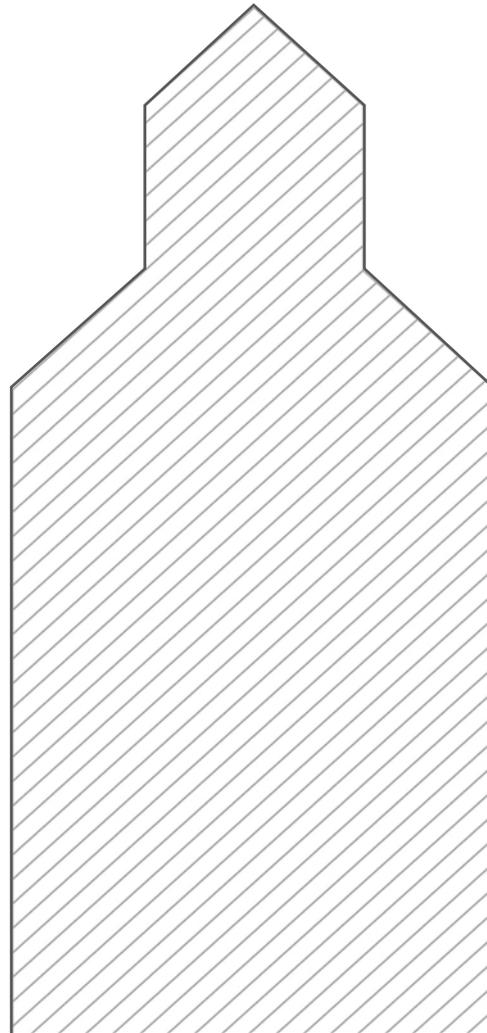
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Living Heritage:

Re-imagining
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in Saskatchewan

ABSTRACT

This thesis explores the tangible and intangible cultural heritage of the wooden grain elevators in Saskatchewan. As wooden elevators become obsolete in the face of progressive agricultural technology, they are facing neglect, abandonment, and demolition. While these elevators were once purely functional structures, their unintentional subsequent monumentality has contributed to their relationship with Prairie people fostering individual and communal identities.

Wooden grain elevators are explored in the context of the past, present, and future using archival research, site visits, and interviews. A case study demonstrating an architectural adaptive reuse of a wooden elevator is developed for the town of Indian Head, SK. The micro-history of Indian Head permits a transposable understanding of the relationship between elevators and other Prairie towns.

The concept of “living heritage” is employed to investigate the tangible and intangible cultural heritage associated with grain elevators. Living heritage is both theory and action—a way of thinking and a way of acting towards the past. It initiates a multifaceted discourse concerning place, time, and people and their interrelationships with wooden grain elevators as cultural icons on the prairies.

Though demolition of abandoned wooden grain elevators is their usual fate, it is crucial that the cultural value of these historic structures be recognized through their living heritage and that adaptive reuse is considered to sustain their existence and usability into the future. This thesis substantiates the importance of wooden grain elevators to Prairie people and prescribes an architectural response for adaptive reuse.

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And to all those who have (or will soon have) a vision for the wooden crib elevators, consider the endless possibilities through collaboration as this thesis is just the beginning. Thank you for your efforts in conserving the wooden elevator legacy.

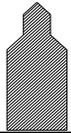
*"Imagine the positive effect and the pride and spirit restored by making these structures a place for community use and social gathering."
(Tourism Saskatchewan)*

Mary Taylor-Ash, CEO of Tourism Saskatchewan, wrote about Ali's Heritage Saskatchewan Conference Presentation in Tourism Saskatchewan's Winter 2015 Newsletter, *Going Places*. See Appendix D (Tourism Saskatchewan).



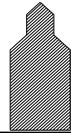
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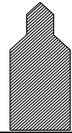


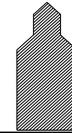
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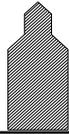
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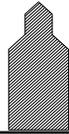
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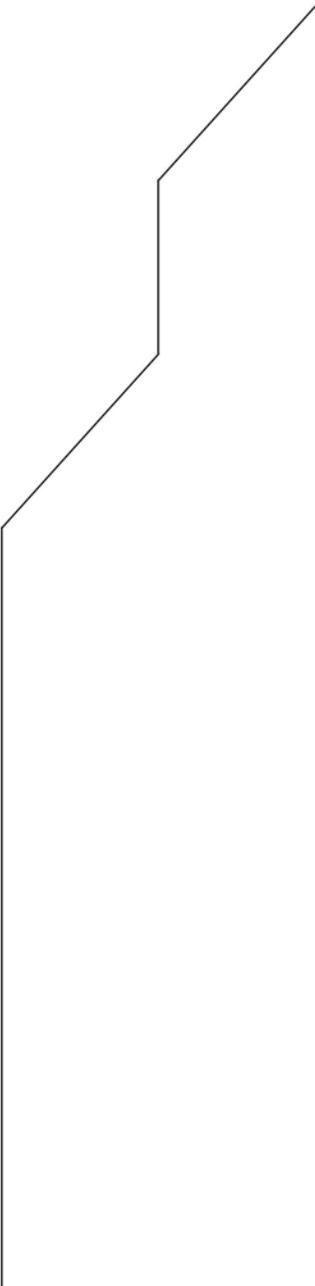
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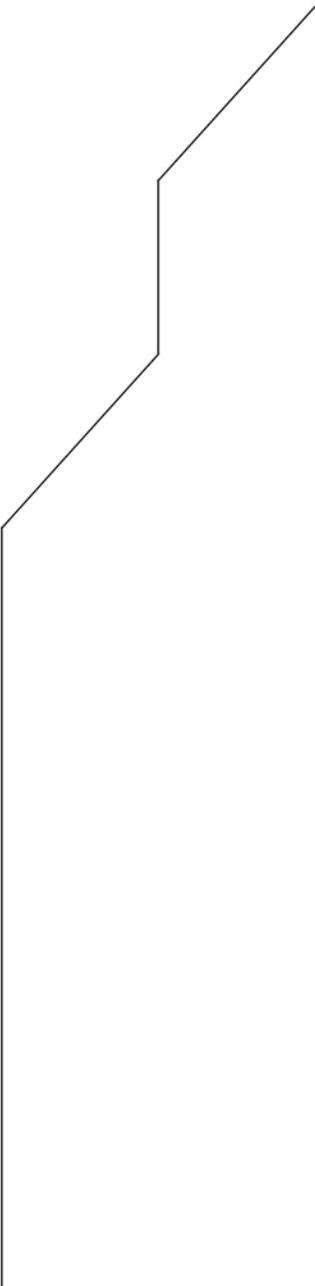
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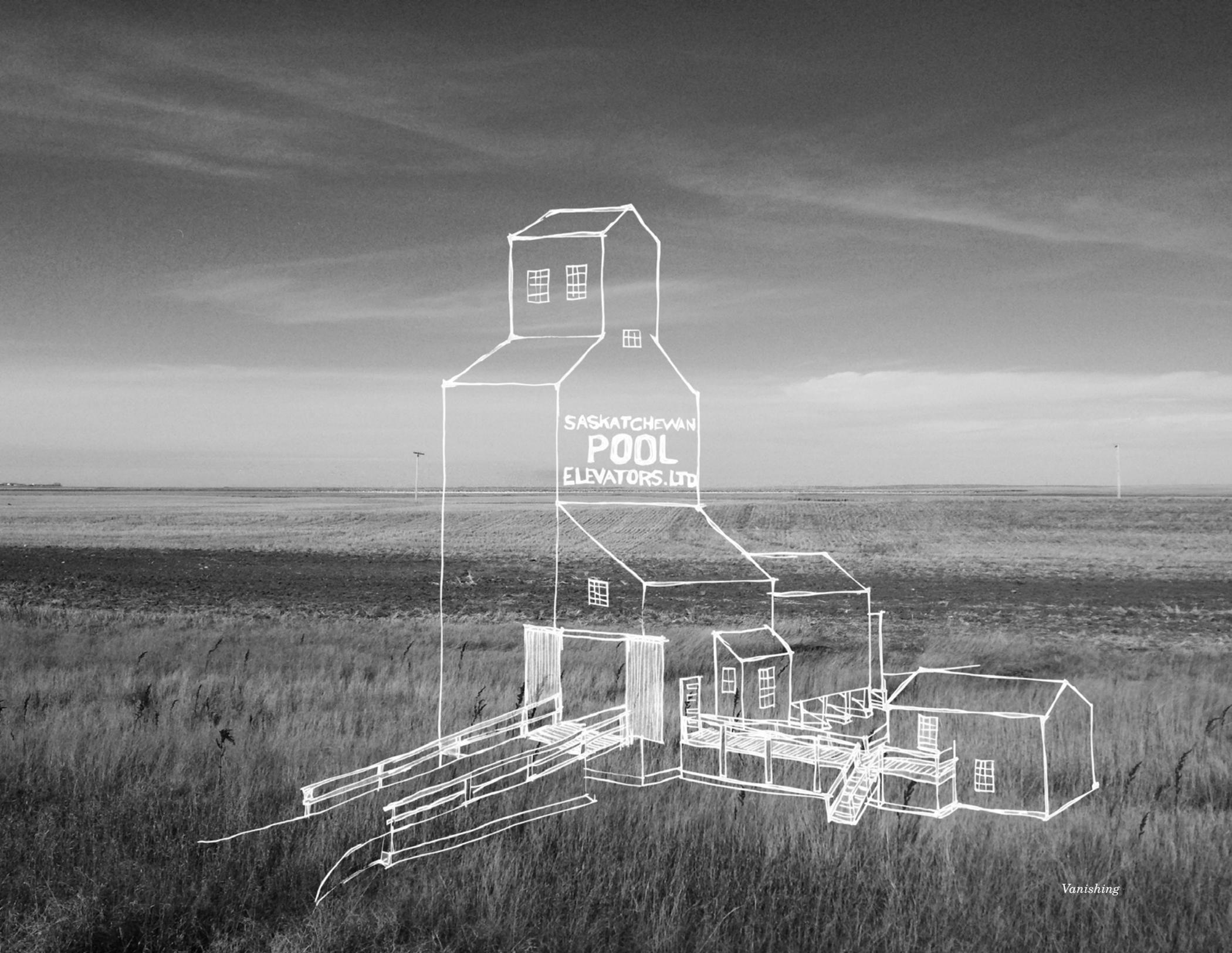
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SASKATCHEWAN
POOL
ELEVATORS. LTD.

THESIS QUESTION

Why are wooden crib grain elevators important architecture within Saskatchewan's evolving culture and how can they be adapted for future use?

Prologue

I do not come from a farming family, nor was I born on the Prairies. However since I was first exposed to the wooden grain elevators (prairie skyscrapers) upon moving to Saskatchewan at the age of 10, they have fascinated me. Perhaps my original interest in the wooden grain elevators arose from their mysteriousness – or what I did not know. I was eager to learn about their history and role within prairie culture. However this research presented bigger questions, which then leads to bigger answers. The elevators are far more than the functional structures I originally perceived.

When I finished high school in Regina, I was quick to leave the province that was - in my mind - small, dull, and insignificant. However after one year of living in Ontario, I began to realize the

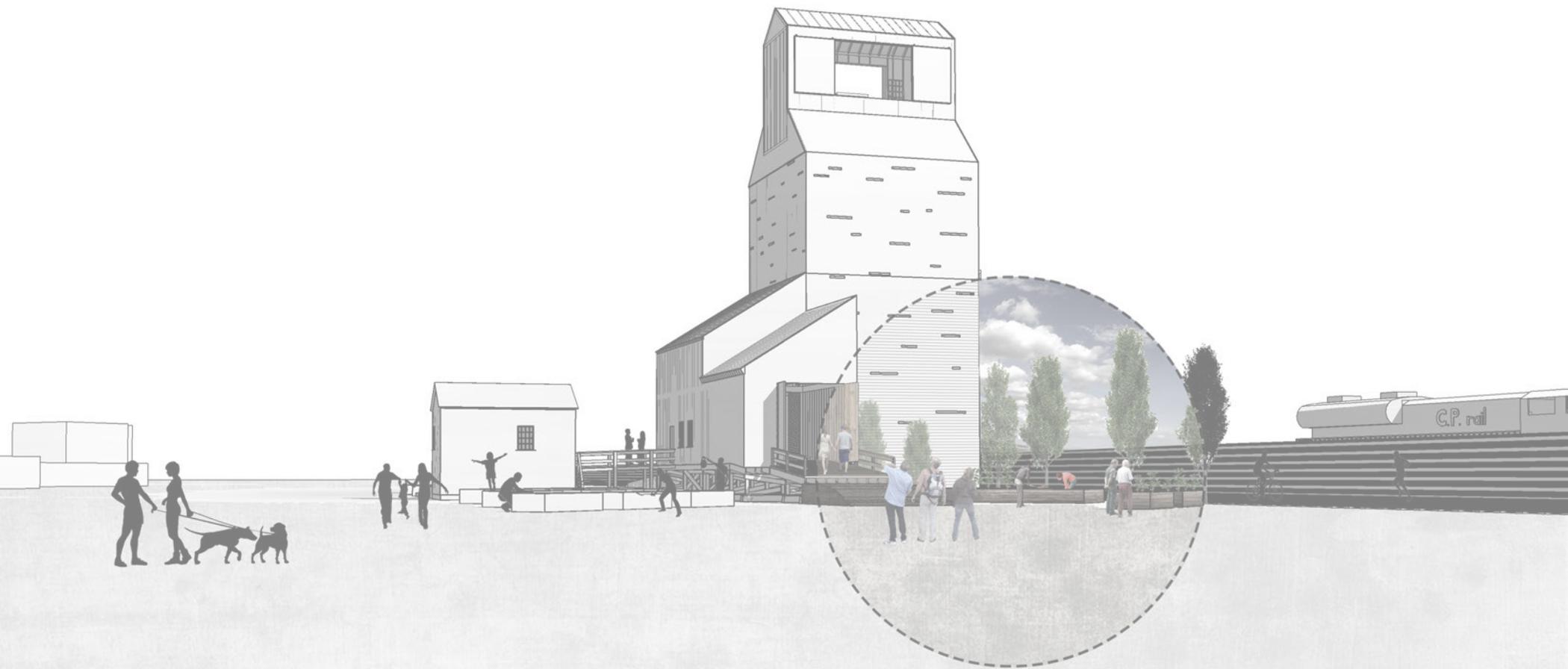
true beauty of the prairies that I had left behind.

The dynamic sky animates the landscape as the wind plays with the clouds. Their shadows dance across the prairie fields also alive with the movement of the wind. The overwhelming openness evokes a reminder about ones identity and sense of place in a larger context. I have come to appreciate the dirt roads that stretch right to the horizon for they allow intimacy and scale within the expansive prairie landscape: each grid road intersection is a measurement of time and a measurement of place. The dust path behind a truck on the country road is visible from a kilometer away and just as the wind plays with the clouds in the sky and crops in the fields, the wind also plays with the dust from the earth.

These moments have become part of me, for at times, I feel most at home in the middle of no-where... because it really is somewhere.

The wooden grain elevators are the point where these prairie characteristics assemble together in a single moment. The large wooden structures delicately decorate the landscape yet anchor the land with the sky through their permanence. The wind that activates movement in the sky and the fields, also weathers the

elevator - writing on its walls the passage of time. Grain elevators mark the sites of rural prairie communities and are a destination for rural folk. Thus, the path of dust left behind a truck travelling down the dirt road leads to or from a grain elevator. The prairie cathedrals exist within this magnificent prairie landscape and in turn the exquisite beauty and narrative of the prairie is realized through their very existence.



*Re-imagined grain elevator
revitalizes community*

INTRODUCTION

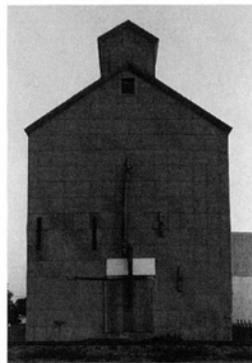
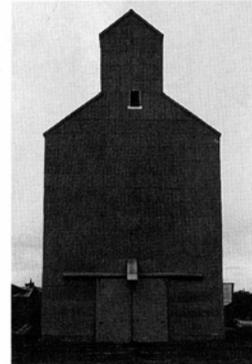
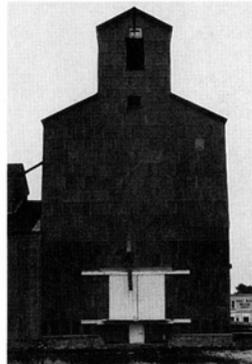
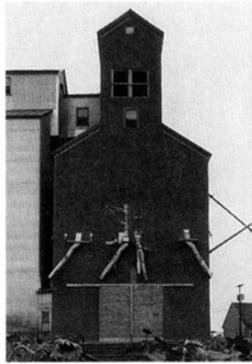
Between 1900 and 1950, wooden grain elevators were very common sights across the Prairie provinces. Between Manitoba, Saskatchewan, and Alberta more than 6,000 elevators once dotted the expansive horizon: “the elevators became so characteristic a feature of the landscape that the fact that they were not indigenous to it became lost in their very familiarity” (qtd. in Charest 51).

Wooden crib grain elevators are tall rectangular structures with pitched roofs. The form of a wooden elevator is derived from its function: it mimics the grain elevating and processing mechanisms originally developed to facilitate the transmission of grain from

the hull of a ship into a storage container on land. “What makes an elevator an elevator is not that it occupies a particular building form, but that it has machinery for raising the grain to the top of the storage vessel” (Banham 109). The cribbed construction of stacked 2’x4’, 2’x6’, and 2’x8’ timbers spiked together proved to be a structural feat in its ability to withstand the fluid pressures of grain circulating through the structure and the environmental pressures of weather pressing in from the outside.

The grain elevators played—and continues to play—two distinct, yet equally important, roles for Prairie people. Originally, they were built to weigh, clean, and store grain from the farmers in the area. Out of this fundamentally functional characteristic, the metaphysical role of the grain elevators emerged. The sheer size and verticality of the wooden structure, and its siting within a village, town, or hamlet, fostered a sense of identity within the people living and working within its horizontal environs. It became a landmark for farmers, town’s people, travelers, train drivers, and pilots contributing to its cultural influence and monumentality. However unintentional this monument was, it is impossible to deny the cultural significance of the rural elevators (Flaman 3).

Typical forms of the wooden crib grain elevator



Grain elevators are explored through the concept of “living heritage”, as developed in *Living Heritage and Quality of Life: Reframing Heritage Activity in Saskatchewan* (Massey). The text focuses on themes of change, memory, narrative, identity, and cultural value while encouraging action surrounding tangible and intangible cultural heritage in Saskatchewan. In the preliminary research stage of this thesis, other theories and concepts—such as critical regionalism, and temporality of built environment—were explored within their relationships to wooden grain elevators prior to selecting living heritage as the primary theory for this thesis.¹ Critical Regionalism presents a distinctive approach to architecture based on site and context (or “region”); however, it fails to focus on temporality and is vague in discussing the making of boundaries.² Temporality of built environments does not capture the importance of the intangible qualities of the grain elevators nor does it include an attitude or directive in determining new or future uses for buildings.³ Living heritage is important in the discussion of grain elevators, as it is both a methodology for a vigilant evaluation of the past, as well as a catalyst for projecting the historic structures into the future through an understanding of tangible and intangible cultural heritage.

1 Cultural landscapes and vernacular architecture were also considered for their theoretical framework however the theories facilitate macro studies however is not suitable to the exploration of an intimate scale considering individual perspectives and values. Further grain elevators are not examples of vernacular or indigenous architecture.

2 Preliminary research used texts by Canizaro, Lefavre and Tzonis, Eggener, and Frampton.

3 This theory was briefly explored through the works of Harries, Mostafavi and Leatherbarrow, and Pallasmaa.

There are many descriptive texts identifying the importance of wooden grain elevators not just in small Prairie towns, but at the Provincial and national level as well (e.g., *Grain Elevators on the Canadian Prairies* [Flaman], *Grain Elevators: Cathedrals of the Plains* [Charest], *Gone But Not Forgotten: Tales of the Disappearing Grain Elevators* [McLachlan]). These texts all point towards the monumentality of the grain elevator forming a Prairie identity, deeply rooted in the history of place. “For poet, farmer architect, and artist alike, the grain elevator is the building which is formed by and reflects back the landscape, economic wealth, and the social structure of the prairies” (qtd. in Charest 1). While many of these texts provide a layer of historical information briefly explored in the context of present conditions, none actually examine the existing condition of grain elevators through a micro-lens in an effort to understand their cultural value negotiated through time. This thesis examines the importance of wooden grain elevators in Saskatchewan’s evolving culture and ultimately prescribes an architectural response to imagine the future potential of the elevators through their adaptive reuse.



Saskatchewan Wheat Pool Elevator in Horizon, SK

Archival research, document analysis, mapping, site visits, local interviews, sketching, and modeling, all contributed to developing

a multifaceted understanding of how grain elevators foster a sense of identity, belonging and place. An examination of Massey's text on living heritage within the context of in-person interviews informed the central concept of this thesis. Living heritage allows for historical context and present conditions to be negotiated through a variety of mediums, which are then instrumental to prescribing an architectural intervention for the future through drawings and models.

The thesis begins with an introduction and application of the concept of living heritage to the subject of wooden grain elevators in Saskatchewan. Two key influential figures are used predominantly to explore heritage theory: Randall Mason (a professor at the University of Pennsylvania) grounds values-based heritage widely used in heritage activity; and Sandra Massey (a researcher with Heritage Saskatchewan) develops the concept of living heritage within Saskatchewan that will be presented as a tangent of values-based heritage. Following the theory presented in chapter 1, the economic trends and cultural values of grain elevators are identified and analyzed at the provincial level. Chapter 3 descriptive history of Indian Head, SK, with a specific focus on its wooden elevators, is a

site analysis of the proposed architectural intervention. It illustrates the pertinent relationship between elevators and their respective communities by situating the larger argument (presented in chapter 2) for the importance of grain elevators in the Province. Finally, a redesign of a wooden grain elevator is proposed in response to Saskatchewan's evolving culture in order to sustain their existence while projecting their tangible and intangible characteristics into the future. The thesis concludes with the application of the adaptive reuse project in both rural and urban settings, responding to the diverse situations existing for grain elevators in Saskatchewan.

CHAPTER 1



CHAPTER1: LIVING HERITAGE

Living heritage and values-based heritage are both contemporary frameworks for exploring concepts of heritage. This chapter provides a brief introduction to these frameworks and will illustrate the importance of anchoring living heritage as key to an architectural intervention for the adaptive reuse of wooden grain elevators.

Value in heritage is a complex question. As such, numerous organizations and individuals have researched and tested models for evaluating heritage values. *Assessing Values in Conservation Planning: Methodological Issues and Choices* written by Randall Mason and published by the Getty Conservation Institute in 2002 is a recent and influential paper illustrating values-based heritage

ideas, methodologies and tools. Mason, a professor and researcher in historic preservation at the University of Pennsylvania School of Design, distinguished heritage activity in three categories: identification of values; assessment of values and application of tools to conserve the values. The notion of “value” is integral to discussions on heritage conservation (Mason 7).

Mason discusses the challenges in identifying and describing all possible heritage values as well as the challenges pertaining to their integration for each unique project. He suggests that values are analyzed and defined by typology within a given context, each from a different perspective (Mason 9). Further, associated social processes emphasize value (Mason 8). Mason introduces the term “multivalent” to illustrate the various value typologies. The first category of typologies is sociocultural values including historical value, cultural/symbolic value, social value, spiritual/religious value, and aesthetic value. The second category is economic values, which is divided into use value (market value) and nonuse value (nonmarket value) (Mason 11-13). Mason acknowledges that though these typologies are each uniquely defined, heritage values have overlapping and/or contradicting values for any given site. The

approach Mason suggests for the identification of values is consistent with living heritage in that they are negotiated both by individuals and as a collective through community-generated initiatives. Living heritage depends on the identification, acknowledgment and activation of tangible and intangible heritage in the present.

In discussing value assessments, Mason reflects that epistemologies compel quantitative and qualitative methods of assessment. This presents challenges, as certain value typologies cannot be measured or compared (Mason 15-16). He suggests using an integrated value assessment process by creating statements of significance, matching values to physical resources and site characteristics, analyzing threats and opportunities, and making policies and taking action (Mason 23-25). Mason presents the roles of various stakeholders and participants as they influence the assessment of value in heritage. Living heritage and values-based heritage call for participation by various entities with differing perspectives to produce “social conception of context to get at the values that go beyond the site itself but that affect the site” (Mason 19). Just as it is up to the community to identify values, it is also up to the community to assess values in creating living heritage. The values



Saskatchewan Wheat Pool Elevator (front) and Federal Elevator (back) in Horizon, SK

in living heritage are continuously being evaluated and negotiated through changing time and relationships.

The third discussion in Mason's paper tackles application of decision-making, sustainability principles, and conservation management tools. This is a point of departure for living heritage as the application for values-based heritage and living heritage differ. Values-based heritage focuses on conservation and preservation while the goal of living heritage is to shift and adapt in order to not be frozen in time rather to be a part of the present and future. Living heritage is the translation of heritage value from past to future through *creation* rather than *protection*. The future of grain elevators is most valuable when framed in living heritage.

Using the theory of living heritage, the themes of change, memory, narrative, identity, and cultural value illustrate the importance of the wooden elevators to the individual and the prairies. The tangible and intangible characteristics of the elevator are interpreted based on perspective and experience in order to inform the architectural intervention and adaptive reuse. Living heritage bridges the gap

between the cultural traditions from the past, cultural identity of the present and cultural aspirations for the future.

The elevator was more than just a tall building, important for the marketing of grain. There was an atmosphere, an intangible feeling attached to it, a feeling that it was a meaningful structure in which meaningful work was being done. Even when not selling grain, farmers tended to loiter at the elevator, sensing from its operation their role in the overall scheme of prairie life. It appealed on many levels and to almost all the senses: sight, sound, touch, and smell (Dommasch 10).

The structure of the grain elevator is evidence of the tangible cultural heritage: materiality, form, and position in the landscape contributed to the tangible character. With respect to the grain elevators, tangible heritage is instrumental in informing the intangible cultural heritage by people, actions, practices, and events associated with the grain elevator.⁴ As stated by Mason, "...value is formed in the nexus between ideas and things" (8). The elevator structure validates the associated intangible ideas, creating a cultural heritage understood through physical and emotive/

4 Fundamentally, people are the basis of all intangible cultural heritage and its application to wooden crib grain elevators is no different.

psychological means. “Grain elevators were, for Prairie people, more than merely a place to store grain. They were a symbol, too, not just a way to make a living, but of an entire way of life” (Butala xiii). Both the tangible and intangible attributes of the elevators require evaluation.

Saskatchewan's Living Heritage

The term ‘living heritage’ originated at UNESCO’s Convention for the Safeguarding of the Intangible Cultural Heritage held in 2003 in Paris. However since 2003, it has inherited a variety of meanings and interdisciplinary uses. For the purpose of this thesis, the concept of Living Heritage is primarily explored based on the document entitled *Living Heritage and Quality of Life* (Massey).⁵ Massey recognizes living heritage as “constantly being negotiated from one generation to the next” (3). Further, she explains that “living heritage moves away from a focus on the preservation of the past to a focus on how the past is used in a contemporary context” (6). Living heritage is significant with respect to grain elevators as it is both a methodology for an evaluation of the past as well as a catalyst for moving them into the future. The main themes identified in Massey’s living heritage concept are change, memory,

5 The concept of living heritage has been active in Newfoundland and Labrador in research and teachings at Memorial University and in initiatives by the Heritage Foundation of Newfoundland and Labrador (Heritage Foundation of Newfoundland and Labrador).

narrative, identity, and cultural value—which are deconstructed and linked to wooden grain elevators in the following section. Living heritage permits a multifaceted study of the architecture of the grain elevator.

.....
Change: Massey argues that the changing world affects heritage through its threat of loss (6). Rather than focusing solely on preservation or conservation, living heritage recognizes change as a constant and emphasizes an understanding of how the past is used in a contemporary context (Massey 6-7). Massey distinguishes living heritage as the way in which change enables individuals “to place themselves within a continuum or as a point of departure” (Massey 7). Change permits the realization of passing time and creates an awareness of temporality in tangible and intangible aspects of life. Historically, the concepts of preservation and conservation limited change in heritage; however Jim Mountain, Director of Regeneration Projects for Heritage Canada, is adamant that the co-existence of tangible and intangible cultural heritage may be adapted to fit current conditions (Mountain). This demonstrates that heritage theory and methodology are also changing to match the needs of present and future conditions. While Mountain

supports living heritage and is open to alterations in heritage, it is important to question what elements can change and by how much. The architectural intervention proposed in this thesis responds to these questions in chapter 3.

Change in technology and economy over the past 100 years have lead to the disappearance of the grain elevators from the prairie landscape. With only a few hundred remaining in Saskatchewan, the threat of losing the wooden structures entirely has resulted in varied responses. It seems that, while most people have accepted the eventual demise of the wooden elevator,⁶ some others see an urgent need to freeze the elevators through photographs and heritage designation. Although there is a small group of people actively participating in the preservation of wooden elevators, it is important to recognize who these people are and why they are doing this work. Most are community members who volunteer their time and efforts because they recognize the value and monumentality of the elevator in their town. It is the recognition of change and shared ambition and imagination from community that generates living heritage. It is inevitable that the remaining elevators will continue to change over time, however their cultural value compels

6 Jim Mountain confirms this is the case in Saskatchewan along with other Heritage buildings and sites across Canada.

a response that enables the elevators to transform with time and persevere—to change and adapt.

Remembering + Memory: Living heritage is activated through a realization of the past. Massey references Robert Archibald’s book entitled *A Place to Remember: Using Heritage to Build Community* in discussing a consciousness of the past through remembering and re-remembering. Remembering “construct[s] identity for ourselves and our communities” while “re-remembering construct[s] new narratives that underscore mutual obligations, ... requires the creation and preservation of those places and experiences that inspire and provide spiritual sustenance, and recognize the importance of memory itself” (Massey 6). Archibald’s book is a personal accounting of how visiting places from his childhood allowed him to activate his memory and remember people and events otherwise forgotten (place-based memory). He describes how these memories shape identity and influence present and future decisions. “History is our myth, our story, our dream of reality, grounded in the context of the past but created to inform the future” (Archibald 99). According to Massey, history informs the present and future through remembering. Remembering is manifested in living heritage.

Archibald's discussion on place-based memory is especially evident in wooden grain elevators. Memory is activated when elevators are observed in the landscape, photographs, paintings, and models allowing history to become part of the present. Each observer will incur memories based on their individual relationship with the elevators. For example, an elevator operator may remember details of mechanical equipment or near-death experiences, while a villager may remember the sound and flurry of activity resonating from the elevator. A farmer may remember positive and negative grain-trading experiences while a tourist remembers the shape and vertical position of the elevator in the prairie landscape. Each observer will remember tangible and intangible qualities of the elevator at a variety of scales. Further, the distinctive form of the wooden elevators that has been replicated across the prairies allows the observation of any elevator to lead to remembering of another elevator – one in which the observer has personal memories. Re-remembering allows for the elevators, now obsolete in their original function, to inherit a new narrative through memory. As a collective, the memories associated with the elevator begin to inform their adaptive reuse. Massey states “heritage activities should be informed by an understanding of how memories are laid down and of the connection between remembering and identity, both individual

7 According to UNESCO, the idea of (collective) memory predominantly appears within oral traditions and social practices.

8 See Value and Authenticity for a brief discussion on the Nara Document on Authenticity below.

and collective” (Massey 15). Living heritage is then activated when memories are shared between individuals or within a community; collective memory embodies living heritage.⁷ Memories associated with wooden elevators are fundamental in distinguishing their value and authenticity⁸ in the heritage of prairie people: the heritage of the individual; the heritage of prairie communities; the heritage of the province; and even Canadian heritage.

Stories + Narratives: Memories can be shared through stories and narratives. Living heritage uses narratives shared between people to animate the present with the past. Massey introduces Tessa Morris-Suzuki’s book, *The Past Within Us: Media, Memory, History* to illustrate how history is often delivered: “what we encounter are representations of the past which reach us through the filter of other people’s interpretations and imaginations” (qtd. in Massey 18). Personal experiences encountered in memory and shared in stories are subjective to the storyteller. Equally as important as the narrative itself is the relationship that forms between storyteller and listener. The storyteller’s memory is validated through the sharing of the narrative with the listener, while the listener profits from the

information in the narrative. Massey describes this relationship as “symbiotic” and appreciates storytelling is a pan-human activity as well as a creative process (18). Experiences that are remembered and exposed through narratives according to personal memory, subsequently allows for the development of a community’s heritage.

Sharing stories about wooden grain elevators creates cultural value. The diverse perspectives generate many narratives. For numerous Canadians, the iconic form of the wooden grain elevator portrays the common story of agricultural heritage on the Canadian Prairies. While many Canadians may not have stories based on personal experiences, the wooden structures are elevated to a realm of public awareness.⁹ The stories about grain elevators also develop a unique Prairie identity.¹⁰ Identity is nurtured through narratives and contributes to living heritage: “the intimacy that comes with stories that are shared with others gives us a sense of belonging and strengthens our sense of individual and collective identity and place” (Massey 19).

9 Patricia Vervoort distinguishes the “Canadian grain elevator” as part of Canadian History because of its extensive use” (Vervoort 188).

10 In personal interviews conducted for this thesis, many narratives about grain elevators were shared with me. See also *Gone But Not Forgotten: Tales of the Disappearing Grain Elevators* by Elizabeth McLachlan.

Identity + Belonging: Sharing stories leads to increased awareness of one's identity and belonging. Massey introduces Holden's 2006 paper entitled *Cultural Value and the Crisis of Legitimacy: Why culture needs a democratic mandate* to show how different experiences – re-lived in memory – form one's sense of self (8). Holden advises that individuals value culture through "... a sense of place and geographical location, where cultural infrastructure can anchor local identities, and in a sense of belonging to a community" (23-24). This is especially true in Saskatchewan. The harsh prairie conditions have produced co-operation, relentlessness, and pride in prairie pioneers who work both with the land and with their neighbours. These co-operative traits continue to be a characteristic of every-day life in Saskatchewan in the present day.

Living heritage encourages value in the past that cultivates identity. In referring to grain elevators and agricultural economy, Ross Keith—Regina-based developer and heritage activist— asserts, "it's a part of what we are here" exposing a collective identity associated with belonging to the Prairies (Keith). In his book, Archibald draws a critical link between identity and place:

Civic narratives are symbolized in public architecture...

reflected in public hospitals, grand parks, public fountains and public art, an extensive public library system, the memorial built to honor veterans of the First World War, a civic auditorium, the network of public bathhouses, courthouses, and boulevards. These impressive public works embody the idea of the public welfare, the common good, and the certainty that the civic enterprise transcends the individual. Such edifices were meant to uplift, entertain, inspire, and civilize (Archibald 150).

Grain elevators were originally private structures installing tangible cultural heritage however their architecture in the public realm embraces collective identity of each prairie town presenting the intangible cultural heritage. As Tara-Leigh Heslip, program coordinator of Indian Head Main Street Revitalization, notes they are “a way to connect with the land” (Heslip). In addition to the way that people identify with the elevators in rural prairie towns, the elevators identify the prosperity (or deficiency) of the town’s economic stature. Prairie people identify with the grain elevators: they “built them, ran them, relied on them, lived in them, and died in them” (McLachlan 6). They are examples of cultural infrastructure that anchor local identities.

Cultural Values: Massey connects living heritage with the concepts

of instrumental and intrinsic values as outlined in Holden’s paper because they contribute to one’s sense of identity, belonging, and place (8).¹¹ For Holden, instrumental values relate “to the ancillary effects of culture, where culture is used to achieve a social or economic purpose” (14). In heritage, instrumental values are the platform for which the significance of an act or object—tangible or intangible—is built and sustained. If something does not have instrumental value, it is not heritage. The instrumental values of grain elevators generate purpose and significance for the individual, the community, the province, and the nation of Canada in a variety of ways. The instrumental values of the wooden grain elevators have shifted over time from a primarily economic purpose to a place-marker, monument, and iconic form distinguishing them as uniquely prairie structures. Holden’s definition of instrumental value works within a discussion on heritage and specifically with exploring the value associated with the wooden grain elevators.

11 Holden’s cultural values are intrinsic, instrumental, and institutional values. See Holden’s paper for detail on three cultural values.

The second element to Holden’s paper discusses intrinsic value as an associated, yet distinct, element to instrumental value. That is, intrinsic value is to “relate to the subjective experiences of culture

intellectually, emotionally and spiritually... captured in personal testimony, qualitative assessments, anecdotes, case studies and critical reviews” (Holden, 14). While Holden’s self-proclaimed definition of intrinsic value incorporates an individual and subjective component, it counters the ethical and philosophical definition of intrinsic value. In philosophy, intrinsic value is the importance of something in it of itself meaning it should not need to be validated by someone in order to have intrinsic value (Stanford). This concept then, contradicts Massey’s argument in that values are placed on personal and family heritage rendering them ‘valuable’ (Massey 7). Intrinsic value requires ones validation and cannot simply be important in it of itself. Holden’s choice to title this kind of value as ‘intrinsic’ is better understood as individual and collective ‘sentiments’ in the realm of heritage; sentiments respond to the recognition of an inherent importance by an individual or group of individuals. It is also important to note sentiments are distinctive from nostalgia as they do not solely consider a bygone time, rather sentiments may be understood as refined feelings. Sentiments connect personal experiences dictated by both Massey and Holden as characteristics of heritage through their cultural value.

The individual and collective sentiments that stem from instrumental value contribute to understanding that the importance of the grain elevators is fundamentally rooted in one's perspectives and relationships with the elevators on an emotional level. The table below demonstrates the relationship between instrumental value and associated sentiments between the past and present. The six perspectives illustrated are those re-occurring perspectives revealed through research in interviews, archival data, and published works. Further, the identification of the instrumental values and personal and collective sentiments included in this table were identified as topics of communal recognition. The table compares and contrasts people, values, and sentiments as they relate to grain elevators in general terms; it is by no means intended to be exhaustive.

“The Elevator was the physical reminder that meritocracy was limited to only certain groups (with access to power) and that the structural barriers to fuller participation in the economy were very real for First Nations Peoples” (Pete)

TABLE 1: Mapping of Instrumental Values and Personal and Collective Sentiments of Wooden Grain Elevators

	Perspective	INSTRUMENTAL VALUES		(PERSONAL + COLLECTIVE) SENTIMENTS		
		Past	Present	Past	Present	
i	Formulated based on archival research using Indian Head and District History book and grain elevator publications at the Saskatchewan Legislative Library	Farmerⁱ	Economic Purpose		Sense of Financial Security	
			Gathering Place		Sense of Community	Sense of Loss - Abandonment
			Place Marker	Monumentality	Sense of Identity and Belonging	Sense of Sadness of a Bygone Era
ii	Formulated based on interviews with Robert Sepke, Brad Kinchen	Elevator Operatorⁱⁱ	Economic Purpose		Sense of Financial Security	
			Place of Employment	Place Marker	Sense of Familiarity and Identity	Sense of Familiarity and Pride
			Hazardous Environment		Sense of Fear	
			Industrialization	Useless Structure	Sense of Accomplishment/Progress	Sense of Annoyance at Dated Technology
iii	Formulated based on interviews with Tara-Leigh Heslip, Linda Kort, Brad Kinchen, Bruce Neill and numerous publications		Gathering Place		Sense of Community	
		Town's Personⁱⁱⁱ	Economic Purpose		Sense of Prosperity	
iv	Formulated based on personal correspondence with Dr. Shauneen Pete, and Tara-Leigh Heslip from Indian Head		Place Marker	Monumentality	Sense of Identity and Belonging	Sense of Belonging and Pride
				Commonplace		Indifference
			Gathering Place		Sense of Community	Sense of Loss - Abandonment
			Economic Purpose		Sense of Hope for Financial Security	
v	Formulated based on interviews with Kyle Franz, Bruce Neill	Aboriginal Peoples^{iv}	Symbol of Colonialism		Sense of Oppression and Inequity	
				Monumentality		Sense of Sadness of a Bygone Era
		Passer-by/Tourist^v		Iconic Form		Sense of Excitement
			Place Marker		Sense of Location and Distance	
		Hazardous Environment	Hazardous Environment	Sense of Fear	Sense of Fear	
vi	Formulated based on interviews with Brad Kinchen, and Gone but not Forgotten by Elizabeth McLaughlin	Friends/ Family of Individuals who Died in an Elevator^{vi}	Grave Site	Grave Site	Sense of Grief	Sense of Grief

Values and Authenticity

Given the multifaceted character of living heritage, authenticity – as a determinant of value – should be considered in the adaptive reuse of wooden grain elevators. The *Nara Document on Authenticity* shares a fundamental similarity with living heritage: “the protection and enhancement of cultural and heritage diversity in our world should be actively promoted as an essential aspect of human development” (World Heritage Committee 5). The idea of adaptable heritage asks that values and authentic elements of tangible and intangible heritage are identified and assessed in order to negotiate their future. “Authenticity appears as the essential qualifying factor concerning values” (Nara, 10), which fuels the maintenance and integration of authentic values in the present and future. The document supports the values-based heritage illustrated in Randall Mason’s paper by acknowledging “our ability to understand these values depends, in part, on the degree to which information sources about these values may be understood as credible or truthful” (Nara, 9).

This reiterates that value in heritage is identified,



A row of wooden grain elevators within the patch-work of fields is an authentic prairie landscape

assessed and validated by an individual or a collective through heritage initiatives. Living heritage is the initiative that allows for adaptation. Further, Nara (11) acknowledges that values and authenticity in heritage cannot be judged within a fixed set of criteria, because each culture must negotiate and distinguish value and authenticity on their own terms.

Many recognize wooden grain elevators as icons of the Canadian Prairies, attributing their presence as necessary to an authentic prairie landscape. According to Nara, this authenticity is essential in identifying their value. Value and authenticity are linked to “form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling...” (Nara, 13), all of which directly relate to the grain elevators and their importance: the way the elevators were built, how they worked, and who they influenced all contribute to their present value. The degree of value placed on the elevators correlates to the range of relationships between individuals and elevators, revealing the multivalent nature of heritage, as outlined by Mason. *The Nara Document on Authenticity* supports living heritage through its acceptance of change and adaptability. It also recognizes and validates value by individuals and/or collectives that encourages the adaptive reuse of wooden grain elevators in Saskatchewan.

Evaluating Living Heritage

Living heritage theory supports an effective analysis of the past and promotes the sustenance of cultural value for the future. While the application of the concept of living heritage to the wooden grain elevators in Saskatchewan is fitting, there are some discrepancies that require identification.

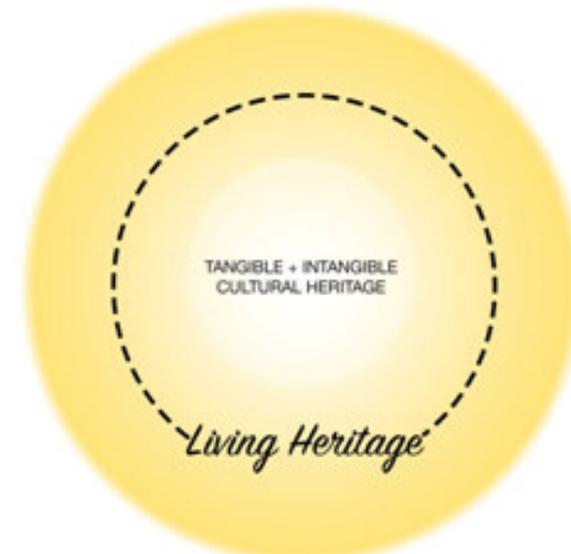
First, the term “living heritage” is understood in a variety of ways. UNESCO identifies living heritage and intangible cultural heritage as the same thing: “Intangible cultural heritage is also known as “living heritage” or “living culture” (UNESCO “Safeguarding Communities’ Living Heritage” 2014). While UNESCO uses living heritage and intangible cultural heritage interchangeably, the term “living heritage” does not appear in the official document produced from the 2003 Convention for the Safeguarding of Intangible Cultural Heritage. This raises further questions as to why and where the actual term “living heritage” came from. Why has UNESCO not yet elected to explore and identify living heritage as a concept either within intangible cultural heritage or alone?

Secondly, living heritage may be understood as an action in which cultural heritage manifests itself. In fact, the UNESCO article entitled *Safeguarding Communities' Living Heritage* (2014) portrays living heritage as cultural actions rooted in the past and actively observed or repeated in the present day. For example, an ancient birth ritual that continues to be used on newborn children today is living heritage. Undoubtedly this is intangible cultural heritage. However, intangible cultural heritage does not need to exist in the present day to be considered as such. Intangible cultural heritage may be lost, forgotten, invisible and/or facing extinction yet still be considered intangible cultural heritage. Thus, is intangible cultural heritage truly living heritage if it is lifeless?

In response to this, a critique of living heritage suggests a slightly different relationship between tangible and intangible cultural heritage. Principally, the concept of living heritage must recognize temporality. The title “living heritage” itself requires that heritage be alive and present. This necessity for heritage to be present in contemporary context is understood in Massey’s writing. Furthermore, Massey’s evaluation of living heritage encourages change, which is very different from the “safeguarding”

or preservation of intangible cultural heritage, as espoused by UNESCO. In this sense, living heritage urges criticality and creativity, while exploring diverse ideas for incorporating the past within the present and future. Indeed, “heritage as an entity generally tends to be viewed as historic about the past... It is not generally seen as unfolding today” (qtd. in Massey 14).

Finally, living heritage is not exclusive to intangible cultural heritage. While a major component of living heritage is intangible elements, Massey’s text indicates the importance of the tangible elements as well. Tangible and intangible cultural heritage are equal. They present individual ideas that are independently perceptive, however when united, the importance and value of cultural heritage is rendered complete. Living heritage then, is not equal to tangible and intangible cultural heritage; rather it is the space around tangible and intangible cultural heritage (Figure 5).



Living heritage is the space encompassing tangible and intangible cultural heritage

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CHAPTER 2

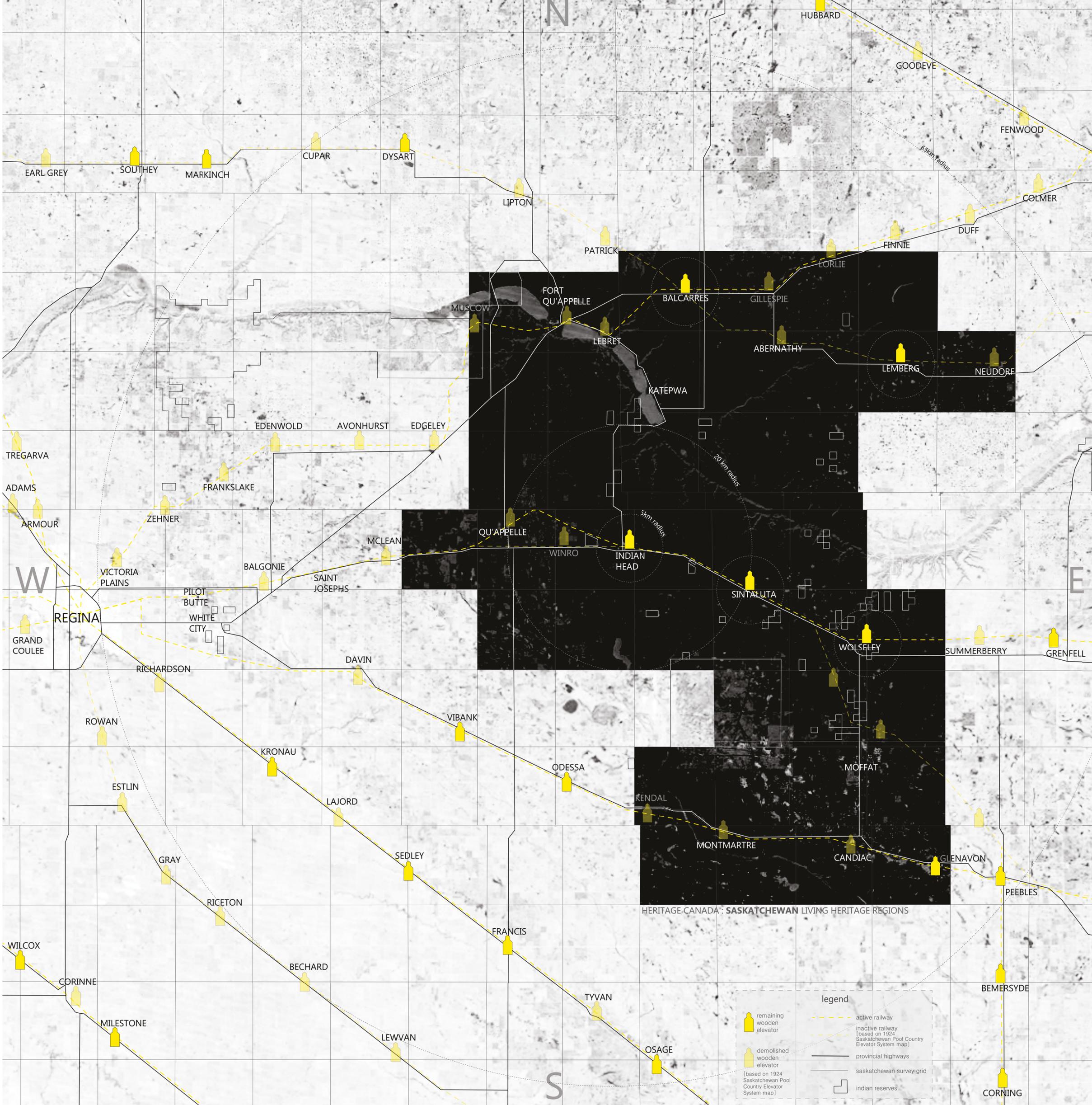


CHAPTER 2: GRAIN ELEVATORS IN SASKATCHEWAN

There is little in Canadian architecture that has not been imported from elsewhere. The grain elevator, however, is one of the few building types that was developed in North America and proliferated in both Canada and the United States (Flaman 2).

Grain elevators on the Canadian Prairies are a product of the co-operative agricultural economy and the expanding railway network in the late 19th and early 20th centuries. Four time periods have been identified in the history of the wooden grain elevator: Genesis (1876-1900), Expansion (1900-1930), Maturity (1930-1970) and Attrition (1970-present)¹². These periods are used to explore

12 According to Bernard Flaman, these time periods first appeared in a paper entitled “Framework and Criteria for the Evaluation of Country Grain Elevators” supporting the row of five elevators in Inglis, Manitoba as a National Historic Site (Flaman).



HERITAGE CANADA : SASKATCHEWAN LIVING HERITAGE REGIONS

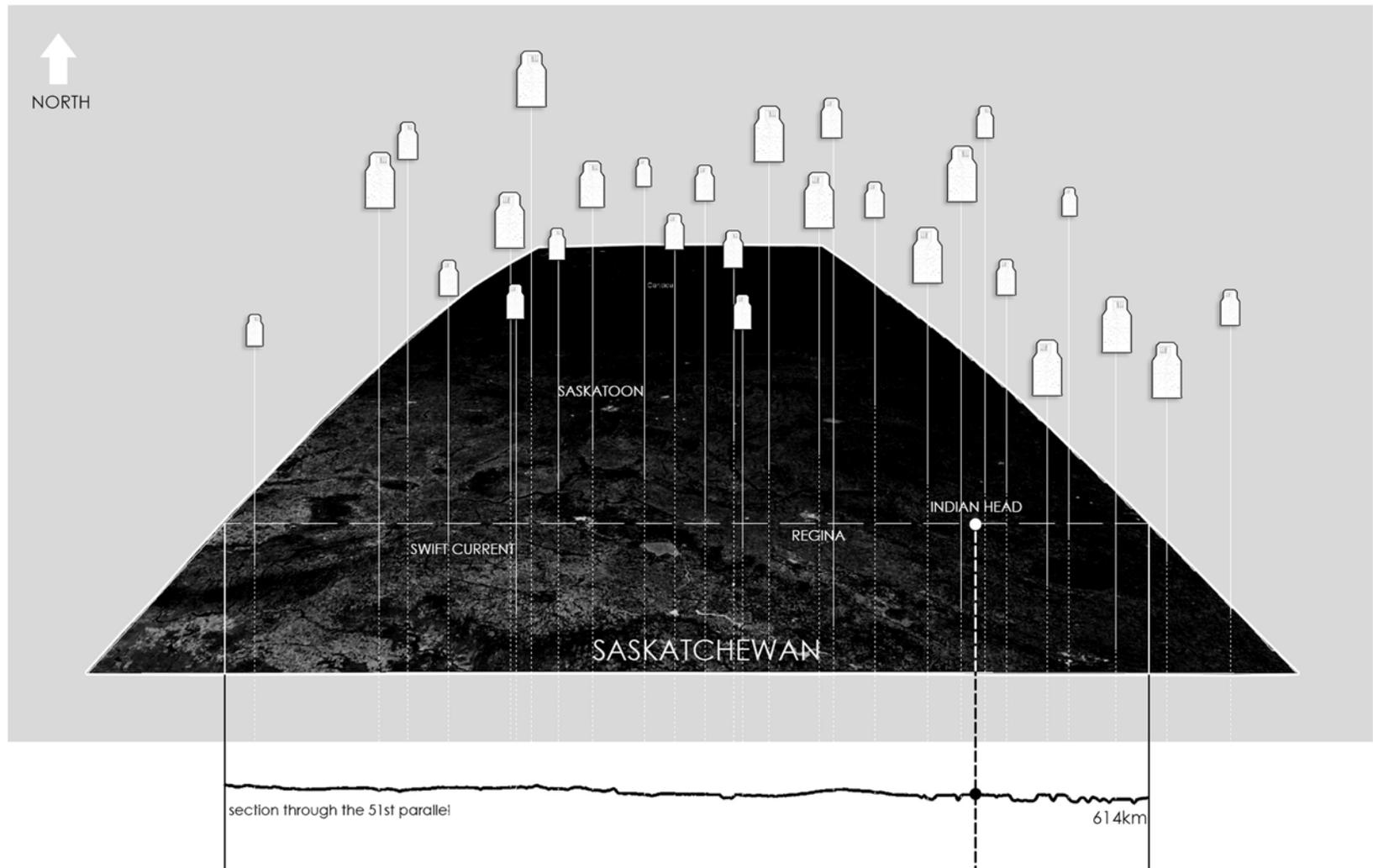
legend

- remaining wooden elevator
- demolished wooden elevator [based on 1924 Saskatchewan Pool Country Elevator System map]
- active railway
- inactive railway [based on 1924 Saskatchewan Pool Country Elevator System map]
- provincial highways
- saskatchewan survey grid
- indian reserves

Map labels include: EARL GREY, SOUTHEY, MARKINCH, CUPAR, DYSART, LIPTON, PATRICK, HUBBARD, GOODEVE, FENWOOD, COLMER, DUFF, FINNIE, LORLIE, BALCARRES, GILLESPIE, ABERNATHY, LEMBERG, NEUDORF, MUSCOW, FORT QU'APPELLE, LEBRET, KATEPWA, EDENWOLD, AVONHURST, EDGELEY, TREGARVA, ADAMS, ARMOUR, ZEHNER, FRANKSLAKE, EDENWOLD, AVONHURST, EDGELEY, W, REGINA, GRAND COULEE, VICTORIA PLAINS, PILOT BUTTE, WHITE CITY, BALGONIE, SAINT JOSEPHS, QU'APPELLE, WINRO, INDIAN HEAD, SINTALUTA, WOLSELEY, SUMMERBERRY, GRENFELL, RICHARDSON, DAVIN, VIBANK, ROWAN, KRONAU, ODESSA, MOFFAT, ESTLIN, LAJORD, RENDAL, MONTMARTRE, VIBANK, ODESSA, MOFFAT, GRAY, SEDLEY, FRANCIS, RICETON, BECHARD, TYVAN, OSAGE, WILCOX, CORINNE, MILESTONE, BECHARD, TYVAN, OSAGE, LEVVAN, FRANCIS, TYVAN, OSAGE, GLENAVON, PEEBLES, BEMERSYDE, CORNING.

the tangible and intangible characteristics of the rural elevator, establishing the conditions of their existence at the provincial level. This chapter studies wooden grain elevators in the context of their physical and geographical surroundings, as well as their historical patterns and narratives.

Conceptual diagram of grain elevators in Saskatchewan



Agricultural Economy

Saskatchewan’s extensive agricultural heritage has had a significant impact on the current conditions in the Province. “Wheat was the staple crop on which the Prairie economy was built” (Government of Saskatchewan “History: Agriculture & Food”). The province’s primary economic base was agriculture until about 1940, when it was gradually replaced by mining and forestry (Phillips). This shift is reflected by the transition of wooden grain elevators from the periods of Expansion to Maturity. Thus, as Saskatchewan’s economy evolved, so has the fate of the grain elevator (Dommasch 7). Hans Dommasch, author of *Prairie Giants*, associates the agricultural economy with the built form of the grain elevator: “Regarded positively or negatively, the elevator still represented the essence of an agricultural existence. Thus, when western writers and artists became interested in local concerns, the elevator started its ascension into the realm of the symbolic” (Dommasch 11). In a special edition of the *Docomomo Journal*¹³ that focused on modernism in Canada, Bernard Flaman—a conservation architect in Saskatchewan—endorses the architectural representation of grain elevators. Flaman states “from an architectural viewpoint, it is the grain elevator that best symbolized this important point in the social, economic and cultural development of the region, and

13 The Journal title *Docomomo* refers to ‘Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement’. The article “Grain Elevators on the Canadian Prairies: Nomadism to Settlement” was written by Bernard Flaman, Maureen Pederson and Garth Pugh in 2008.

possesses wider significance through its influence and iconic form” (3). While the rural elevators are certainly part of Saskatchewan’s built heritage, their gradual disappearance is an incessant reminder of Saskatchewan’s changing economy.

Elevator Statistics

The number of wooden grain elevators on the Prairies peaked around 1930 during the Maturity period at over 5,758, with a combined capacity of 190 million bushels (Vervoort 182; Butala xiii).¹⁴ According to Jim Pearson - a grain elevator historian – only 448 wooden elevators remain standing in Saskatchewan, many in disrepair. As of 2004, only 361 wooden elevators were licensed in all of Canada, of which only a portion were located in Saskatchewan (Vervoort 182). Today, less than 100 country elevators are actually in use (Pearson).¹⁵ In 2014, more than 15 elevators were demolished in Saskatchewan alone.¹⁶

14 Refer to “Towers of Silence”: The Rise and Fall of the Grain Elevator as a Canadian Symbol for further information on the count of wooden elevators at relative dates (Vervoort).

15 In a report prepared for Saskatchewan Heritage Foundation in association with the Ministry of Saskatchewan Tourism, Parks, Culture, and Sport, notes that by December 2009, “the list of known wooden grain elevators in the Province had declined to approximately 420” (Cazakoff).

16 See Jim Pearson’s website for his updated count of remaining elevators at: <http://vanishingsask.ca/Welcome.html>.

Rail Network

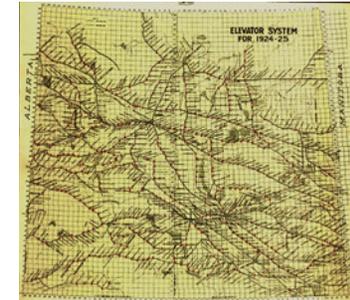
“Crossing the tracks meant crossing over the driveway of the elevator” (McLachlan 86).

17 Grain is also exported through the Arctic Ocean at the Port of Churchill MB on Hudson Bay.

18 “A town’s Railway Avenue boasted an architectural landscape that included a row of elevators, railway stations, water towers... All were indicative of a way of life that revolved around Prairie rail transportation. The first of these structures, the elevator, is the last element to have survived” (Ross).

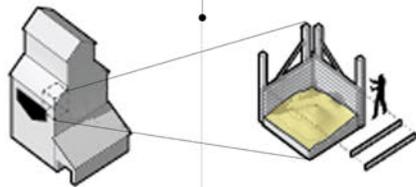
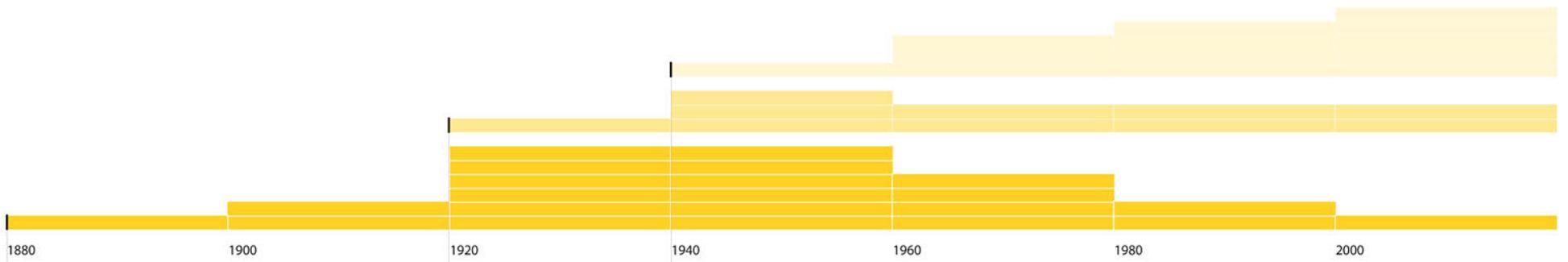
19 Elevators were built along the railway 10 miles apart as farmers bringing their grain in a horse pulled cart could make the round trip to the elevator in a day. “The old ‘ten miles to the nearest elevator’ was becoming a thing of the past” (Butala xv).

Wooden grain elevators were built as an integral part of an extensive transportation network that stretched from coast to coast, using railways to export grain globally.¹⁷ “The grain elevator is one of the by-products of the expansion of the wheat market from a local to a world basis” (Clark 2). The first rail line was laid down through Saskatchewan in 1882 and fuelled the establishment of the grain economy in Canada. The wooden elevator’s form and function was “embraced on the Canadian Prairies with the Canadian Pacific Railway implementing a standard for elevator construction” (Flaman 3). The grain elevators “were indicative of a way of life that revolved around Prairie rail transportation” (Ross; Keith) and, following railway stations, grain elevators are the only remaining Prairie architecture rooted in the rail system.¹⁸ The gradual shift in transportation methods from railway to highway imposed limited accessibility and further encouraged the decline of wooden elevators. With that, “great grain ‘terminals’ made of concrete, without beauty or mystery, signifying only industrialization of agriculture, began to appear by the side of major highways” (Butala xv).¹⁹



Saskatchewan Wheat Pool grain elevator system map 1924-25. See Appendix C for large map.

1 BAR = 500 ELEVATORS

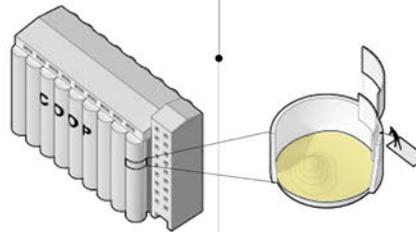


WOODEN CRIB GRAIN ELEVATOR

Average Bushel Capacity = 25,000

- Heavy timber structure with wood panel cribbing
- Constructed by 10 - 12 men crews

1 elevator / 9 mile radius

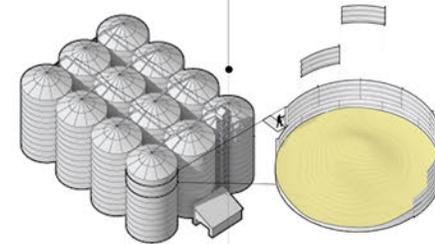


CONCRETE GRAIN TERMINAL

Average Bushel Capacity = 80,000 to 100,000

- Reinforced concrete is cast into framework
- Constructed with crews of 40+ and the use of a crane

1 elevator / 15 mile radius

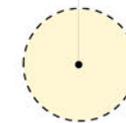


STEEL GRAIN SILO

Average Bushel Capacity = 50,000 to 100,000

- Prefabricated galvanized steel panels are assembled by a small crew

1 elevator / 13 mile radius



Progression of elevator technologies
(Piwowar "Mapping Wooden Grain Elevators in Saskatchewan")

Shift from Wood to Concrete

“They are grey, cold looking and mysterious” (McLachlan 3).

The changing agricultural economy, reduction in rail transportation, and outdated mechanical functionality of the wooden grain elevators has led to their disappearance (Banham 175). Concrete “inland terminals” and steel silos have gradually been replacing the wooden elevators since the Expansion period in the early 1900s. Besides being constructed of different materials and inheriting a much different form from the wooden elevators, the concrete terminals differ in their capacity, efficiency, and location. Where the average capacity of a wooden elevator was 35,000 bushels, concrete terminals average 100,000 bushels. The amplified capacities in the concrete terminals led to an increased service range for farmers in the area who historically had access to a wooden elevator every 10 miles to trade their grain.²⁰ Few wooden elevators received updating in their lifetime, as the structure was perceived as incapable of supporting new technologies.²¹ Interestingly, Paterson Grain elevator operator Robert Sepke reports that “abandoning rail lines has put more stress on road networks... rail is still more efficient” (Sepke). The majority of the wooden and concrete elevators adjacent to the main rail lines will remain active so long as they prove efficient.

20 As the agricultural economy in Saskatchewan dropped behind the mining and forestry industry, the family farm first created by settlers was forced to develop into large corporate farms in order to be sustainable.

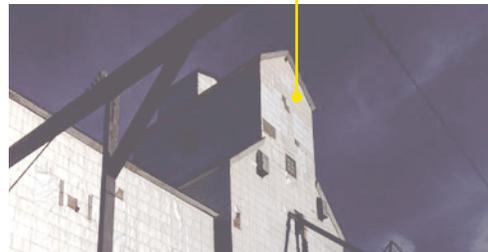
21 “The average life a wood or brick elevator was reckoned to be around twelve to fifteen years, not because of obsolescence or structural decay but because of fire or explosion” (Banham 113).



One of the oldest concrete grain terminals in Saskatchewan, owned and operated by Paterson Grain Co. in Indian Head, SK

“And great grain ‘terminals’
made of concrete, without beauty,
or mystery, signifying only
industrialization of agriculture,
began to appear by the side of
major highways. The old ‘ten
miles to the nearest elevator’ was
becoming a thing of the past”
(Butala xiv-xv).

Perrish and
Heimbecker wooden
crib grain elevator



Saskatchewan
Wheat Pool wooden
crib grain elevator



Grain elevator landscape in
Indian Head, SK in 2014

Destruction and Demolition

“I assumed that... elevators had always been there and always would be” (Butala xiv).

22 The seven wooden grain elevators designated as Municipal Heritage Properties in Saskatchewan are Bengough, Battle River, Val Marie, Parkside, Elmsthorpe, Baildon and Hepburn (Canada’s Historic Places “Grain Elevators in Saskatchewan Register Results”)

23 “The fate of the wood grain elevator mirrors that of other modernist structures... which are rendered obsolete when the technology that created them is superseded” (Flaman 4).

Eventually, all remaining wooden grain elevators in Saskatchewan will be demolished (with the exception of seven designated as municipal heritage properties) unless efforts are made to prevent further demolitions.²² Ross Keith—Regina-based developer and heritage activist—insists “if grain elevators are sitting empty and derelict, it is not a matter of *if* they will be demolished, it is a matter of *when*” (Keith). The destruction of wooden elevators is often vicious and wasteful: “the now redundant elevator was toppled over, crushed and burned” (Flaman 4).²³ Heritage Canada acknowledges three of its “worst losses” were the Fleming, AB grain elevator destroyed by fire in 2010; the Carstairs, AB grain elevator demolished in 2004; and the Clairmont, AB grain elevator demolished in 2005 to make way for a housing development (Heritage Canada).

Wooden elevators clad in aluminum sheet siding (a technique introduced during the Maturity period) require additional work contributing to the labor and cost in the removal of the metal before prior to demolition (Sepke). Few elevators have been



Demolition of Riverhurst, SK Federal Elevator on March 27, 2010.

24 Although grain elevator wood is very valuable as the weathering of the wood from the grain over many years produces what is known as ‘grain polished wood’ (Kirk).

25 Robert Sepke, Paterson elevator operator in Indian Head states that grain dust is more flammable than gas (Sepke).

dismantled piece by piece with the intent to recycle the wood.²⁴ Retired wooden grain elevators are quickly destroyed by mechanical equipment and fires by the grain companies that own them due to financial and liability issues.²⁵ Ingrid Cazakoff, CEO of Heritage Saskatchewan, acknowledges that as soon as a grain company decides to abandon a wooden elevator, the demolition crew is on site within weeks—much too quickly for the people in the community to organize themselves to take action (Cazakoff).

“I was for a minute lost, disoriented, the one landmark that had always signalled my near-arrival gone, leaving only a blank space on the low horizon. Coming upon the place suddenly **I was unprepared, and the unexpected emptiness of that windswept, grassy spot struck a plangent chord in me of loss, the absence of that elevator having now become as powerful as its presence had been**” (Butala xvii).

“People came to associate elevators with their community and when they’re gone they feel a significant physical component of the community has vanished” (Garth Pugh, Saskatchewan Heritage Foundation Manager, qtd. in Liebenberg).



Demolition of Codette, SK Wheat Pool Elevator on August 3, 2010.



Demolition of Dollard, SK Wheat Pool Elevator on April 9, 2013.



Demolition of Krydor, SK Wheat Pool Elevator.

Preserving Elevators

There is evidence in many Prairie communities of attempts to preserve their elevator(s). Unfortunately, grain companies that prioritize financial and liability issues over heritage preservation usually own many elevators that become obsolete. The majority of prairie communities that have managed to acquire their elevator have modified it into a museum or historic site.²⁶ A unique example of elevator preservation is in the town of Dawson Creek, Alberta that converted their grain elevator and its annex into an art gallery (Dawson Creek Art Gallery). As many communities recognize, “with the demise of the wooden grain elevators comes the death of many of the tiny Prairie towns which surround them” (Boddy).

26 Selected examples include the Canadian Grain Elevator Discovery Centre (Canadian Grain Elevator Discovery Centre), Inglis Grain Elevators National Historic Site (Inglis Heritage Committee), Esterhazy Flour Mill preserved elevator and flour mill in working condition (Town of Esterhazy), and the old Val Marie Elevator undergoing a renovation to become a museum.



Art gallery in grain elevator annex in Dawson Creek, AB

Although the remaining elevators have been researched and documented, and their demise reported on since the beginning of the Attrition period (circa 1970), there is yet to be a publication imaging the future of wooden grain elevators in Saskatchewan.

Summary

Grain elevators are built forms that characterize the history of the Prairies. Some have referred to the structures as the most Canadian of architectural forms as they have appeared on “dollar bills, postage stamps, and as Canada’s exhibits at world fairs” (Vervoort 201).²⁷

27 The Canadian dollar bill featured the wooden grain elevators between 1954 and 1967. 20 and 50-cent postage stamps depicted grain elevators in 1930, 1933, and 1967 (Vervoort 201).

The life and death of wooden elevators in Saskatchewan parallels the trend in the Province’s agricultural economics and Canada’s railway system. There is an irony in the narrative of the elevators: the same progress that brought the elevators to the Prairies during the Genesis period is what is destroying them through Attrition today. Still, grain elevators have reflected, and continue to reflect, the evolution of Prairie society. Their preservation is valuable to the provincial heritage of Saskatchewan.

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CHAPTER 3



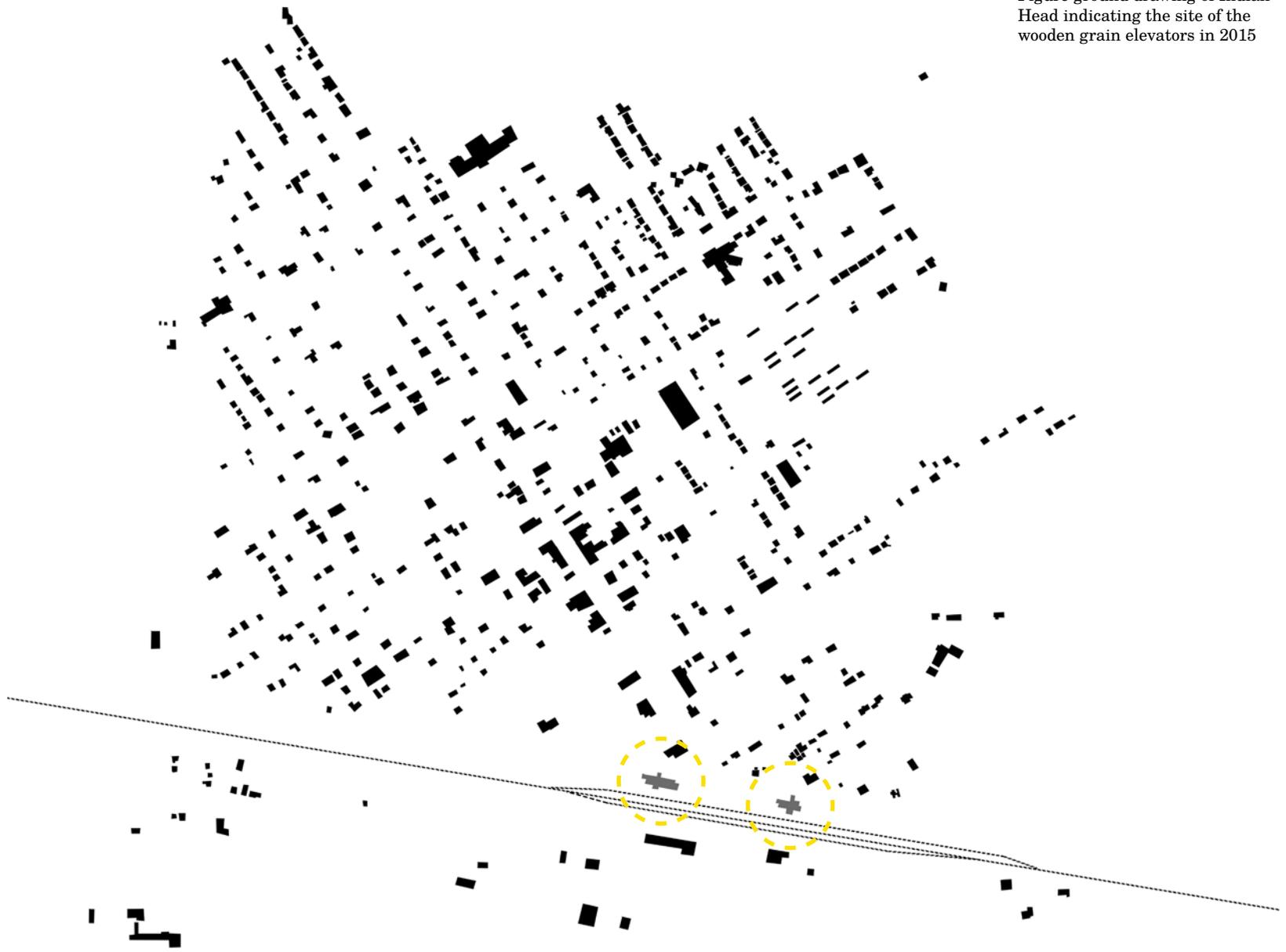
CHAPTER 3: HISTORY OF GRAIN ELEVATORS IN INDIAN HEAD

28 Through engagement with people in the communities, the Heritage Region project aims to identify, analyze, and stipulate elements of tangible and intangible cultural and natural heritage (Mountain 2).

29 The specific area of study presents a strong connection to the agricultural history of the Province that ultimately provides a framework to ground the study of wooden grain elevators given their fundamental relationship to agriculture.

The Saskatchewan Living Heritage Regions project, initiated by Heritage Canada The National Trust²⁸, focuses on fifteen communities within a 40km radius just east of the city of Regina. In consultation with Jim Mountain, Director of Regeneration Projects for Heritage Canada, details of the project endorsed a need for research on grain elevators in the area.²⁹ Recognizing the relevant relationships between historic agricultural prosperity and grain elevators, the Heritage Region project became an ideal target for this thesis. Following a review of historic resources, individual interviews, and site visits, the Indian Head wooden grain elevators drew particular attention because of their tangible and intangible heritage. While all remaining elevators in the Heritage Region

Figure ground drawing of Indian Head indicating the site of the wooden grain elevators in 2015



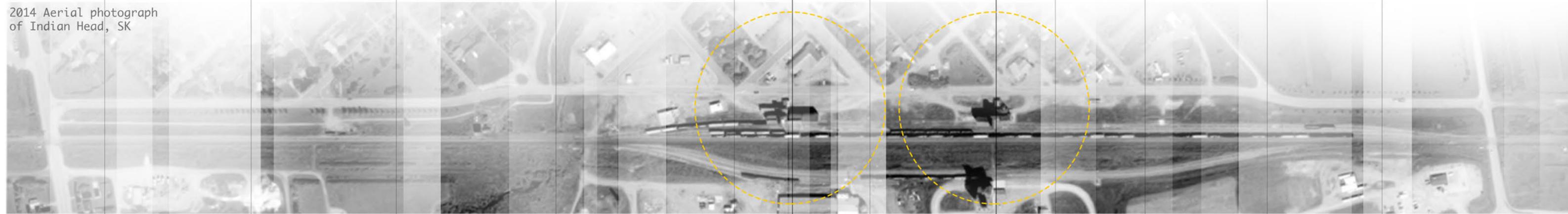
were identified and examined, it was the awareness of cultural heritage and revitalization efforts within the community of Indian Head that supported my decision to focus this research on their remaining wooden elevators. While the specific example of the Indian Head grain elevators shows the importance of these structures to that town—the concepts developed in this thesis are applicable to all remaining grain elevators across the province.

By developing the history of Indian Head in reverse chronology, the complex evolution of the town's grain elevators is investigated in a way that connects their multifaceted layers of history back to the primary conditions of their origins. Beginning with the remaining elevators in Indian Head, each step back in time identifies a critical event that has consequently affected their physical and metaphysical qualities. This analysis also forms the basis for a site analysis for an architectural response that proposes an adaptive reuse for the future of wooden crib grain elevators in Indian Head, and across the prairies.



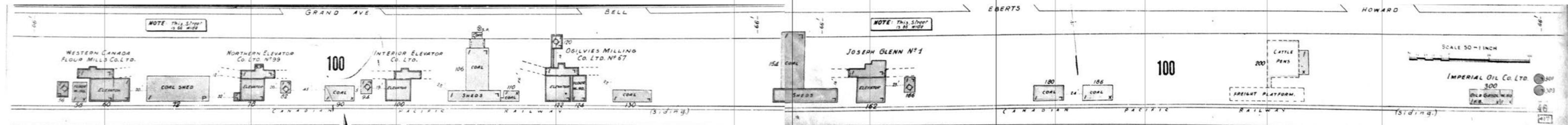
Perspective of Indian Head's wooden grain elevators from the top of the Paterson concrete grain terminal

2014 Aerial photograph of Indian Head, SK



1885 1890 1895 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1986 1990 1995 2000 2005 2010 2015

1919 Plan of elevator row drawn by The Western Canada Fire Underwriters' Association



▪ (-) PRIVATELY OWNED ELEVATOR

▪ (1905) LOCALLY OWNED ELEVATOR II
▪ (-) HOLDEN BROS ELEVATOR COMPANY

▪ (1905) LOCALLY OWNED ELEVATOR I
▪ (1930-1984) INTER-OCEAN

▪ (1930-1984) SASKATCHEWAN WHEAT POOL

▪ (1890) NORTHERN ELEVATOR
▪ (1930) CARGILL
▪ (1984) CARGILL

▪ (-) INTERIOR ELEVATOR CO.
▪ (1930-1984) N.M. PATERSON

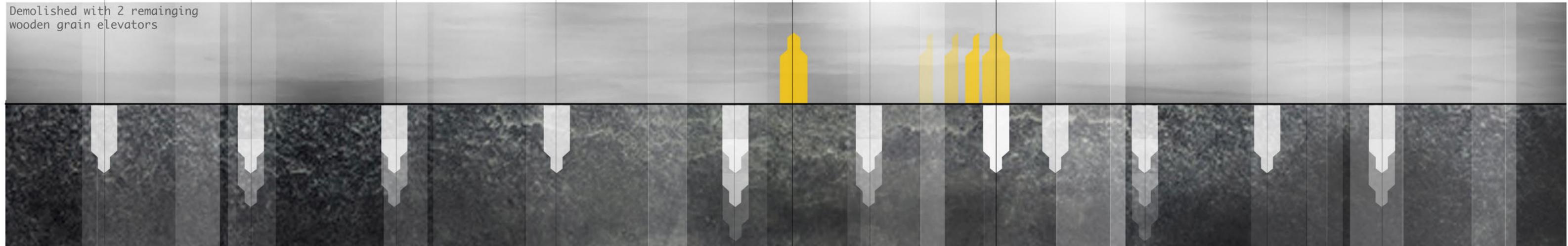
▪ (1907-1920) FARMER'S ELEVATOR

▪ (1884) BELL FARM ELEVATOR
▪ (-) OGILVIE MILLING COMPANY OF WINNIPEG
▪ (1930) WINRO POOL

▪ (-) PATERSON ELEVATOR

▪ (-) WESTERN CANADA FLOUR MILLS
▪ (1930-1984) PARRISH AND HEIMBECKER

Demolished with 2 remaining wooden grain elevators



Present Condition and Remaining Elevators

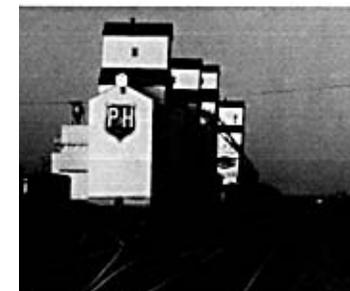
There are only two wooden grain elevators left in Indian Head. The elevators are the salient symbols of Indian Head visible from Highway 1, the Trans-Canada Highway spanning the Prairies from Calgary to Winnipeg. They stand 800m apart, between Railway Avenue and the main line of the Canadian Pacific Railway on the south side of the town. Both wooden structures are from the Maturity period and are still operational.³⁰ Each grain elevator has 21 cribs with a storage capacity of 39,000 bushels. Grain annexes (five in total) sit adjacent to the grain elevators, each providing an additional 20,000 bushels of storage space. Combined, these two elevators have a capacity of over 120,000 bushels. However, even at the end of the 2014 harvest they were barely half full (Sepke).

30 Refer to Appendix A for detailed explanation of the functionality of wooden grain elevators.

31 Paterson built its last wooden crib grain elevator in Grenfell, Sk (about 40 minutes South East of Indian Head) in the 1980's and remains open as a fully functioning grain elevator today. Paterson owns 19 of the remaining wooden elevators in the Province—two of which are in Indian Head (Sepke).

32 The original weigh system in the wooden elevators, do not meet the current standards for grain scales. Consequently, the grain is weighed using the new weigh scale in the concrete terminal on the south side of the tracks before being brought to the wooden elevators.

Both Indian Head elevators are owned and operated by the Paterson Grain Company, one of the longest operating grain businesses in Canada (McLaughlin 68).³¹ Robert Sepke, a Paterson employee responsible for them, notes that while both elevators are still used to store grain, it is unlikely that they will last another ten years because of their limited capacities, structural deterioration, and outdated technologies³² (Sepke). For the immediate future, however,



Indian Head's four elevators in 1984.

Perspective of Indian Head's
two remaining elevators along
Railway Ave.

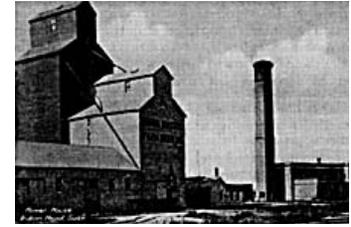


33 Grain trucks must schedule a time with Paterson to drop off their grain.

their ability to store grain is more cost effective than either the cost of replacing them with concrete terminals or the cost to demolish them. With the two elevators only open certain days of the week, the daily activity at the site of elevators is minimal.³³

Elevator Row (circa 1905-1930)

Indian Head's elevator row once featured twelve grain elevators and one flour mill. The twelve elevators animated the small town's skyline, boasting of its wealth. Until 1905, wooden crib grain elevators were built between Railway Avenue and the main Canadian Pacific Rail siding (in the same location the two remaining elevators currently stand). The original row of elevators were owned by various grain companies and together had a storage capacity of 350,000 bushels (The News "Twelve Grain Elevators Once Lined North Side of Indian Head Tracks" 1978). "Grain flowed here from a radius of 50 miles and more, drawn to the territories' most bustling center, which boasted an early flour and grist mill" (The News "Imposing Wealthy Skyline!" 1955).



Indian head elevators with brick smoke stack from power plant circa 1930



Indian head elevators in 1921



15

Twelve Elevators and a Flour Mill
in Indian Head circa 1905

“Using wooden construction [for grain elevators] appeared in the 1870’s: the so-called cribbed bin, whose rectangular walling was built up of the layers of large planks laid flat and then spiked together, layer by layer, with massive nails” (Banham 115). Douglas Fir was the most popular choice for elevator construction and came to Indian Head by train from British Columbia (Sepke).³⁴ An experienced team of foreman from the area constructed the row of elevators in Indian Head.³⁵ The newly constructed elevators were a sign of prosperity and photos of Indian Head’s prominent elevator row were used in advertising the potential of Prairie land to prospective immigrants. “One could judge by the number of elevators the size, population, and importance of a community” (Dommasch 10). And so, Indian Head continued to grow—from 1,000 people in 1902 to 1,800 in 1905 (Barrett 24).

34 Poplar and spruce woods were also used to construct grain elevators. In *The National Policy and the Wheat Economy* by Vernon Fowke, it is noted that “70 percent of the lumber was output from British Columbia” (qtd. in Flaman 3).

35 The town history book, *Indian Head: History of Indian Head and District* names Dennis Ivan Blakley and Gerald Racette as two individuals who constructed wooden elevators (Barrett 269, 626).



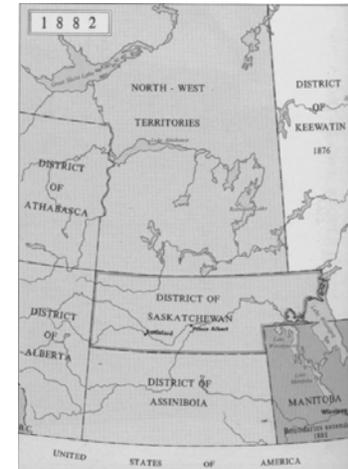
Winro Elevator in Indian Head



Grand Avenue in Indian Head pre WWI with elevar row in the distance

Saskatchewan becomes a Province (1905)

Until 1905, the Town of Indian head was part of the North-West Territories. The Saskatchewan Act, establishing the Province of Saskatchewan in an area previously recognized as the North-West Territories, became effective as of September 1st, 1905. The name Saskatchewan was derived from the Cree language *kisiskāciwani-sīpiy*, meaning ‘swift flowing river’. It refers to the Saskatchewan River flowing eastward through the center of the Province (Government of Saskatchewan “About Saskatchewan”).



District of Saskatchewan in 1882



Province of Saskatchewan in 1905

Co-operative Movement (1901)

Saskatchewan's extensive history of co-operation ultimately stemmed from vital survival efforts by immigrants. However the presence of co-operation on the Prairies pre-existed the arrival of colonialists to the time when Aboriginal Peoples lived off the land sharing amongst each other and early fur traders (Saskatchewan Co-operative Association). The first formal agrarian co-operative effort by settlers occurred in Indian Head in 1901. The Territorial Grain Growers Association, which later became the Saskatchewan Grain Growers Association, began with a meeting between farmers from Abernethy, Kenlis and Indian Head who were unhappy with the unfair marketing and valuation of their grain by the Eastern Canada conglomerates (Lang 494). Notable people that argued for the creation of the association included W.R. Motherwell (later to become Saskatchewan's first Minister of Agriculture), John Millar, P. Dayman, and John Sibbold. The meeting of 65 people—which took place in Indian Head on December 18th, 1901—was the event that instigated the founding of farmer owned and operated grain elevators across the Province that standardized grain value (Gray 71). Following the founding of the Territorial



Wheat congestion in Indian Head in the 1890's that led to the initiation of the grain co-operative in 1901

Grain Growers Association in 1901, the United Grain Growers was established in 1905 in nearby Sintaluta, SK. These efforts eventually informed the creation of the Provincial grain co-operative and the Saskatchewan Wheat Pool in 1924. A Saskatchewan Wheat Pool Elevator was built in Indian Head the following year (McLaughlin 67-70).

In no other country of the world have the grain growers done so much to solve their own problems as in our Canadian West (Clark 22).

Experimental Farms and “Bread Basket” (1887-1937)

36 The Bell Farm in Indian Head also contributed to the prosperity and growth from 1882 to 1930 (Indian Head).

37 This elevator was converted into a craft store and coffee shop but is now unused.

38 Saskatchewan continues to produce more than half the wheat grown in Canada (Attractions Canada).

Early agricultural success in the area was strengthened by the founding of the Dominion Experimental Farm in Indian Head.³⁶

The farm was opened in 1887 by Angus McKay-the first aboriginal Canadian elected to the House of Commons-with the objectives of providing relevant and localized farming information to immigrants as well as beginning long-term agricultural studies for Canada (Buber 42-44). The Experimental Farm is situated on one square mile, adjacent to the eastern limit of town and once had its own grain elevator. The elevator was much smaller than typical elevators as it was meant to store only small portions of experimental grains.³⁷

The quality and the amount of wheat that was grown in the Indian Head area broke records and both the Experimental Farm and family-owned farms in the area were prosperous. In 1902, Indian Head handled more grain than any other place in the world (The News “Imposing Wealthy Skyline!” 1955). This manifested in the construction of 12 elevators and a flour mill within a few years later. The term “bread basket” rose from this prosperity eventually lending the term to the whole Province.³⁸



21,000 bushels on 520 acres 1 mile north of Indian Head

Railway (1882)

The Canadian Pacific Railway breathed life into the new community of Indian Head. The railway was imperative for the export of grains stored in the many elevators of this territory.³⁹ “The grain business began [in Indian Head] with the arrival of the railroad in September [1882]” (Mclaughlin 67). The rail line did not service surrounding towns such as Abernathy and Balcarres forcing all farmers to bring their grain into Indian Head to trade their grain at one of Indian Head’s twelve elevators. The CPR encouraged more grain companies to build elevators by giving them the sole right to ship grain to the terminals. Railcars were constantly needed in Indian Head – it seemed as if the rails could barely keep up with the amount of grain being produced in the region (Mclaughlin 67-70). The economic prosperity of the region was very dependent on the railway’s ability to move the grain: without it farmers would not get paid and elevators would not be able to take in any more grain.⁴⁰ The rail network had a significant impact on the construction of the wooden crib elevators in the province. Indian Head is a prime example of the impact of railway companies on Prairie communities.

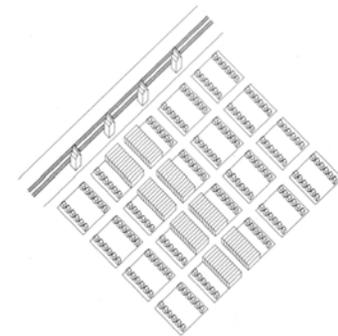
39 The locations of many rural municipalities in the south including Indian Head, demonstrate the influences of the Canadian Pacific Railway on settlements (Mortin 9).

40 The grain elevators and the railway play an integral role to one another: grain elevators cannot be imagined without direct access to the rail.

Survey (1882)

The land survey and subdivision of the Prairies began advancing westward from Winnipeg in 1876, eventually arriving in Indian Head in 1882. “In 1884, the areas of ten rural municipalities – Moosomin, Broadview, Wolseley, Indian Head, South Qu’Appelle, Qu’Appelle, Wascana, Bell Plain, Moose Jaw and Pleasant Plains – and the towns of Regina and Moose Jaw were defined by proclamation” (Mortin 9). “Prior to the land survey, there are no authentic records of squatters in the area” (Hart 1). The surveyor’s responsibility was to mark each quarter section (160 acres) and appraise the land as to its agricultural potential (Hart 1-3). The provincial survey did have irregularities with a fault line (or an offset in the grid) occurring 5km north of Indian Head.⁴¹

41 See Map of Saskatchewan Living Heritage Regions



T-town plan

Immigrants and Town Settlement (1880)

The first settlers in the Indian Head area were primarily wealthy people from Ontario (The News “Twelve Grain Elevators Once Lined North Side of Indian Head Tracks” 1978). The Indian Head and District history book also notes many Scottish families (Dechief 630). Unlike many other prairie towns, Indian Head pre-existed the arrival of the railway.

T-town: Indian Head’s formal plan is categorized as a variation on a ‘T-town’ plan. The main street runs perpendicular to the railway on a slight angle in accordance with the fastest route from the Bell Farm to the commercial centre (Mahar-Keplinger; Indian Head).



Plan of Indian Head

Aboriginal Peoples (First People)

The land was plentiful with wild bison and home to Assiniboine and Sioux First Nations, long before European immigrants and colonization reached the Prairies. A plague of smallpox, carried by the foreigners decimated the Aboriginal populations. Their bodies were strewn across the area and left exposed to the elements, and eventually weathered to the bone. The piles of skulls were named “Win-cha-pa-ghen” by the remaining Aboriginal People, which directly translates to “Skull Mountainettes” (The News “How Indian Head Was Named”). Soon after, the new settlers called the place Indian Head.



Town monument located between railway and transcanada highway

Glacial Ice Field

Thirty thousand years ago, Saskatchewan was entirely covered by continental glaciers and for thousands of years, glaciers 5 kilometers thick rested on top of the Indian Head area (Hart 1). As they melted, a glacial lake was formed over the Indian Head region, depositing silt and clay into the lakebed. Today, this ancient lake bed has some of the best agricultural soils in Saskatchewan (Hart 1).

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CHAPTER 4



CHAPTER 4: ARCHITECTURAL INTERVENTION

This chapter shows how the critical components of wooden grain elevators that characterize the tangible and intangible heritage can be mediated through adaptive reuse. While there has been little research completed on the subject of intangible and tangible cultural heritage within adaptive reuse, this chapter presents an architectural analysis of character-defining elements⁴² essential to maintaining the elevator's heritage, while proposing a transformation from a space for grain to a space for people. Previously, character-defining elements of wooden grain elevators have been identified and used in the preservation of the structures as municipal, provincial, and national historic sites;⁴³ however the intention of this study is not to preserve but to adapt the elevators. The character-defining elements that are distinguished within

42 The Standards and Guidelines for the Conservation of Historic Places in Canada provides a complete definition and explanation of character-defining elements (Canada's Historic Places Standards and Guidelines for the Conservation of Historic Places in Canada).

43 Dr. John Everitt discusses the evolution of character-defining elements of grain elevators in Manitoba (Everitt). See also Saskatchewan Heritage Foundation's Grain Elevator Study for character-defining elements in relation to Saskatchewan Elevators (Saskatchewan); and a grain elevator research report prepared by Maureen Pederson for Saskatchewan Heritage Foundation in 2000 (Pederson).

the elevators' interior fabric, exterior fabric and contextual fabric will be identified and followed by a description of the vision for the transformed space. Change is an important characteristic of living heritage and forms a foundation in which to situate the tangible and intangible cultural heritage of wooden grain elevators on a spectrum between permanence and adaptability.

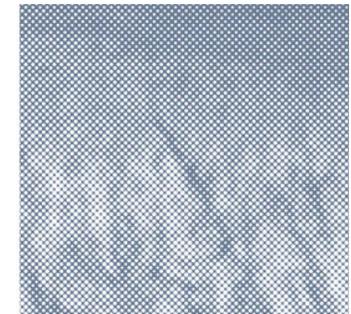
The opportunity for adaptive reuse of wooden crib grain elevators will be tested using the Saskatchewan Wheat Pool elevator in Indian Head as a case study. Living heritage requires community involvement and community-generated ideas through which heritage may begin to be negotiated in the present (Massey 7). Thus, the adaptive reuse of any elevator should ultimately cultivate the identity of its respective community.

In consultation with people from Indian Head, three key programs were identified for their elevator: community space(s), a tourist information center, and guest suites (short-term stay hotel or hostel). The adaptive reuse also proposes a community garden, a community kitchen and interstitial spaces within the grain cribs creating an

“Elevators mark ‘our place’ in the vastness of the prairie landscape. Many of these elevators have already been demolished. We need an opportunity to mourn the passing of the way of life they once represented... So, too, must we redefine our ‘sense of place’ and our self-definition in response to our changing environment” (Cole).

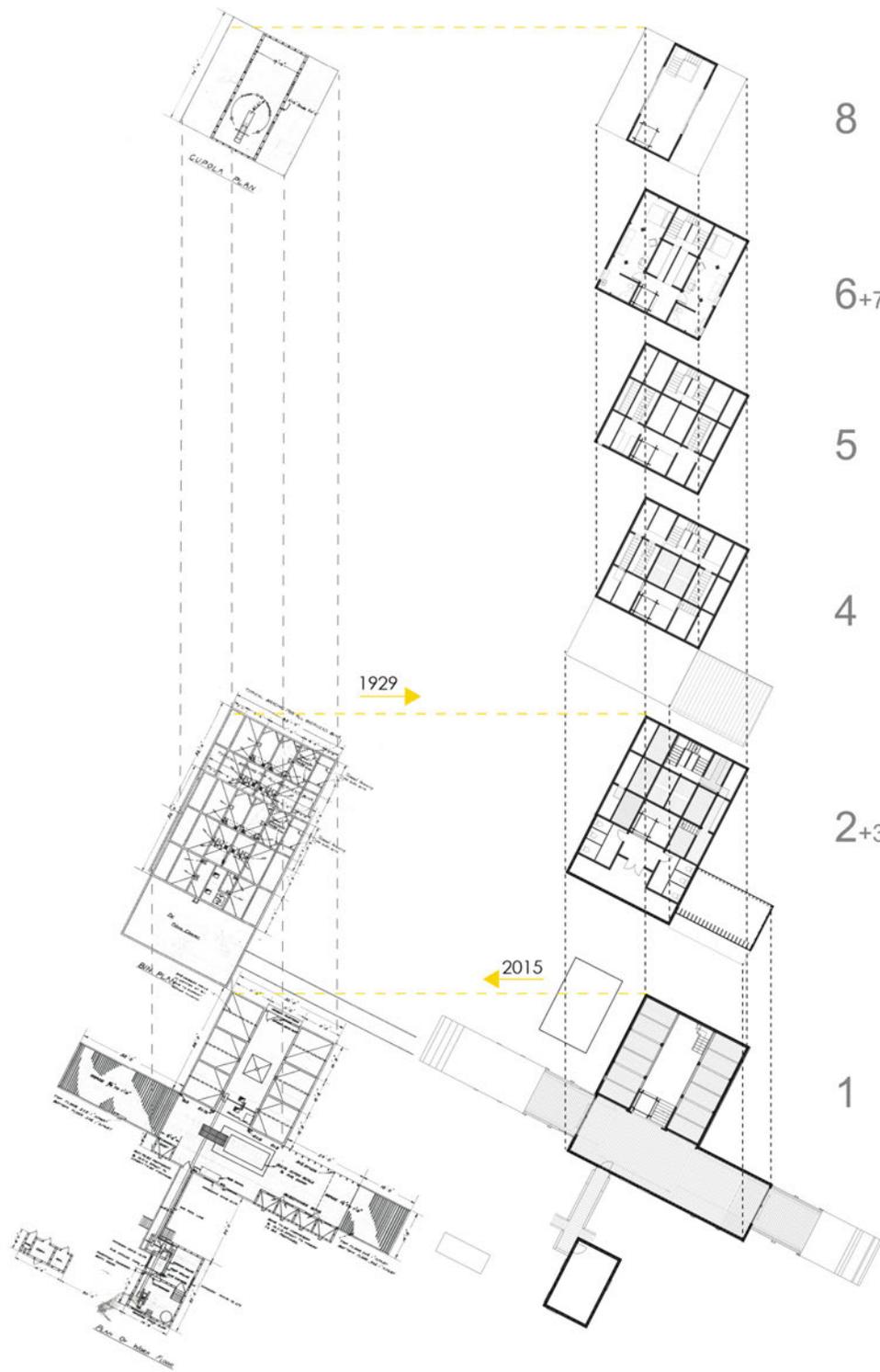
animated journey from the bottom to the top. Two guest suites have been located in the shoulder of the elevator, and a bakery/coffee shop located at the top. These programs will promote interaction between tourists and local residents, thereby stimulating living heritage. Specifically, these programs reveal the living heritage of the Indian Head elevator to be a reflection of history, a gathering place for the community, a landmark for tourists, and a source of economic prosperity.

No additional walls are constructed through the adaptive reuse of the wooden crib grain elevator. Openings cut through the original crib walls to create the large community space and the interstitial passageways that take visitors through the grain cribs. It is imperative that the cribbed corners (where the wooden members meet and overlap) be maintained through the interventions as they are the core structure for the elevator.



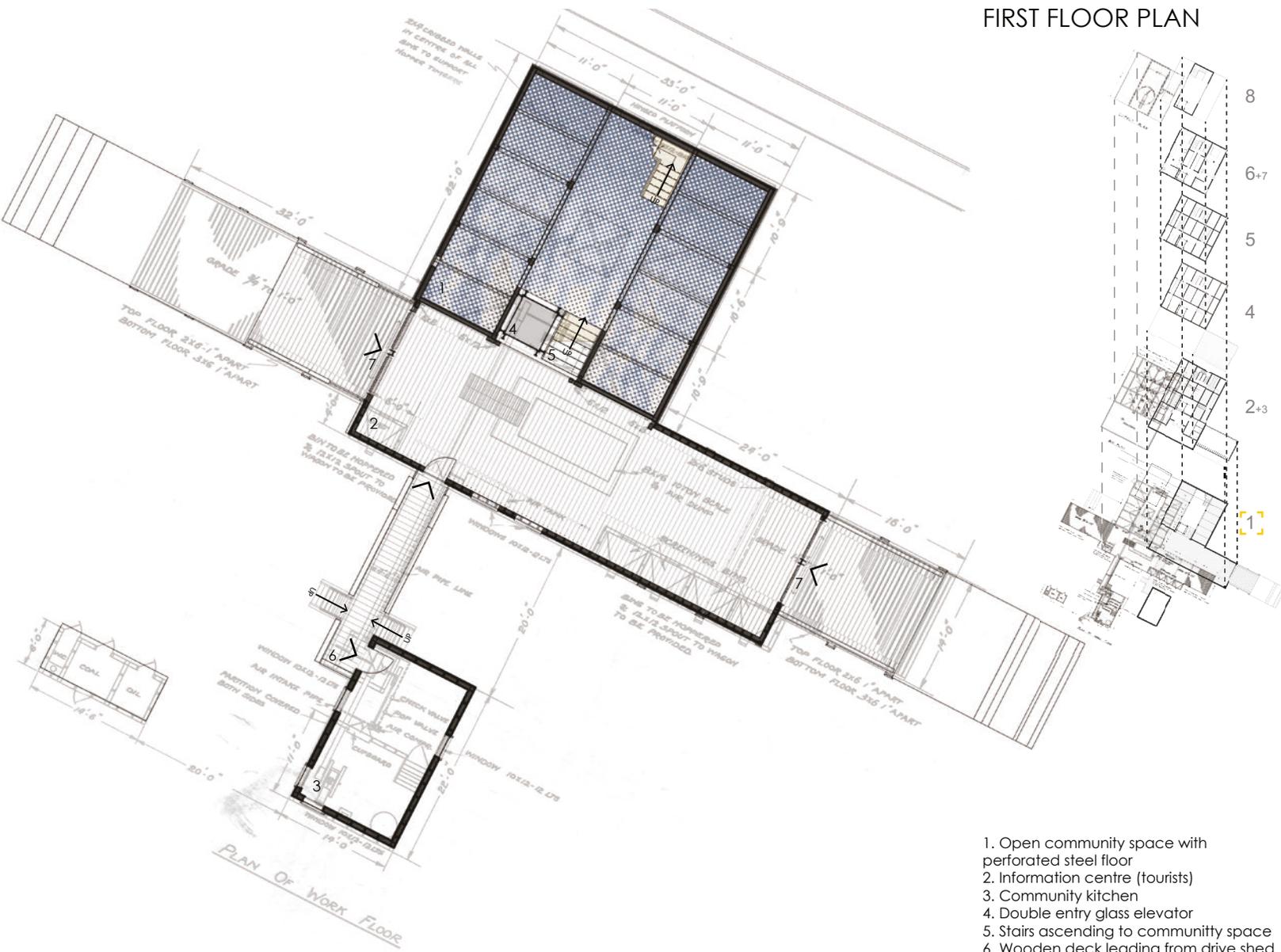
Interventions within the grain cribs will be perforated steel with a pattern that mimics the fluid quality of grain





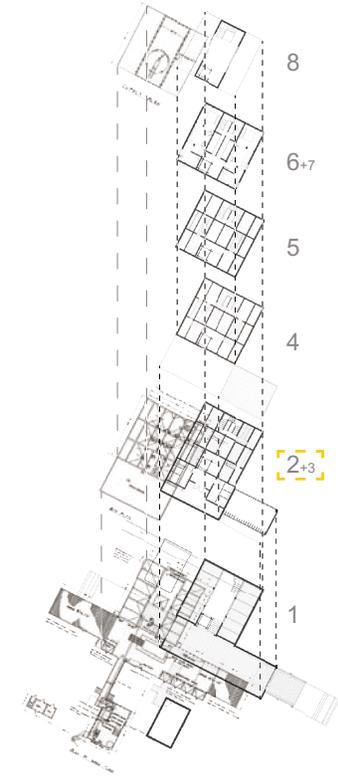
1929 plans with 2015
intervention plans adjacent

FIRST FLOOR PLAN



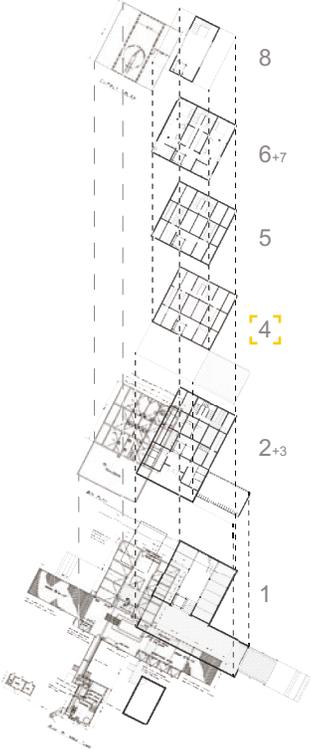
1. Open community space with perforated steel floor
2. Information centre (tourists)
3. Community kitchen
4. Double entry glass elevator
5. Stairs ascending to community space
6. Wooden deck leading from drive shed to community kitchen
7. Large wooden sliding doors

SECOND + THIRD FLOOR PLAN



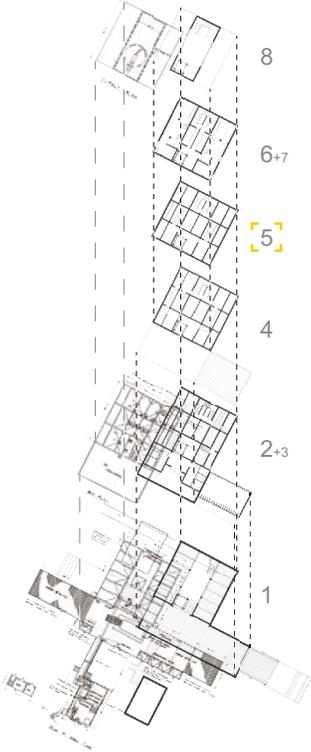
1. Primary circulation stair
2. Womens washroom
3. Mens washroom
4. Office and meeting room
5. Perforated steel floors plates inserted in grain bins
6. Double entry glass elevator

FOURTH FLOOR PLAN



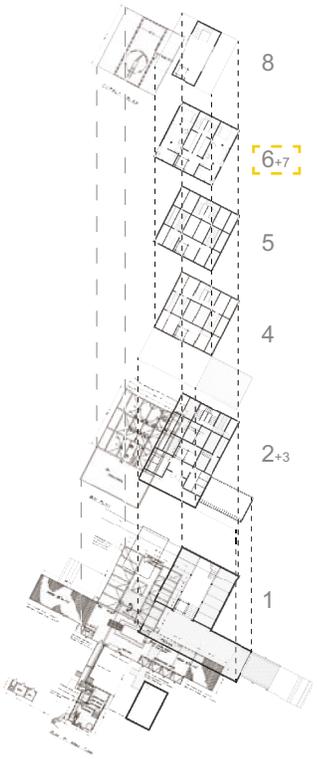
- 1. Primary circulation stair
- 2. Double entry glass elevator
- 3. Perforated steel floor plates in grain cribs with wheelchair accessible viewing platform

FIFTH FLOOR PLAN



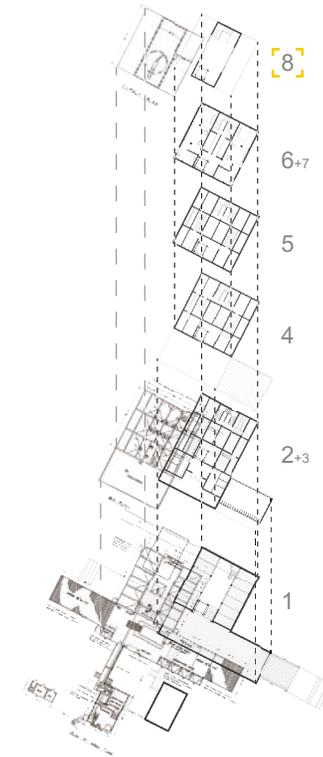
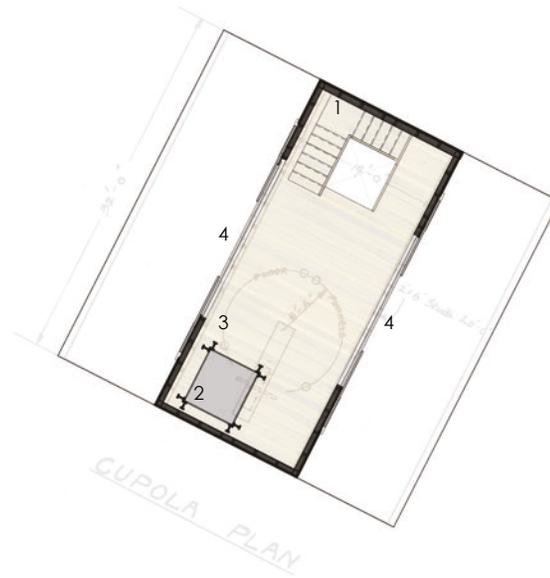
- 1. Primary circulation stair
- 2. Double entry glass elevator
- 3. Perforated steel floor plates in grain cribs with wheelchair accessible viewing platform

SIXTH + SEVENTH FLOOR PLAN



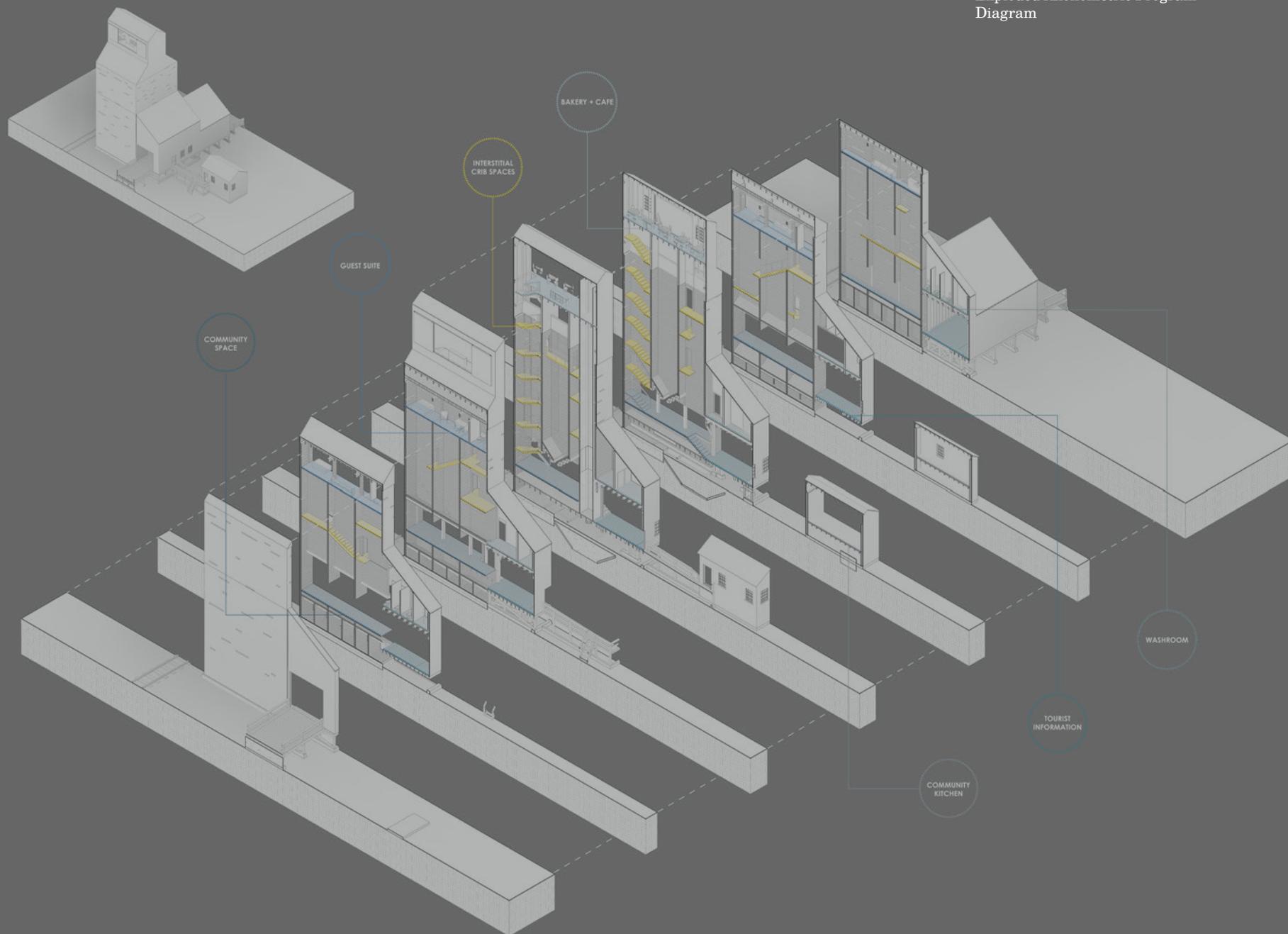
- 1. Primary circulation stair
- 2. Double entry glass elevator
- 3. Perforated steel floor plates in grain cribs with wheelchair accessible viewing platform
- 4. Guest suite barrier free bathroom
- 5. Guest suite living room
- 6. Guest suite bedroom
- + 4,5,6 repeat in 2nd guest suite

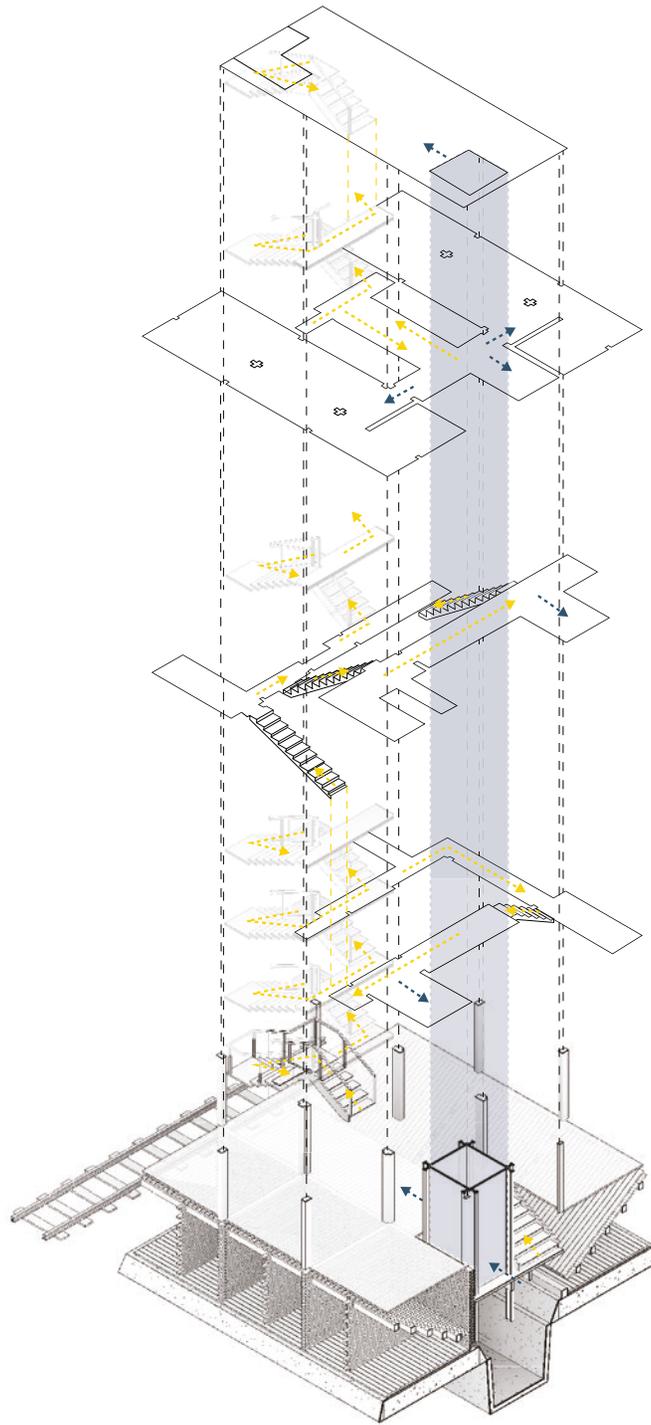
EIGHTH FLOOR PLAN



1. Primary circulation stair
2. Double entry glass elevator
3. Coffee shop and bakery
4. Operable wooden sliding doors revealing floor to ceiling glass windows

Exploded Axonometric Program Diagram





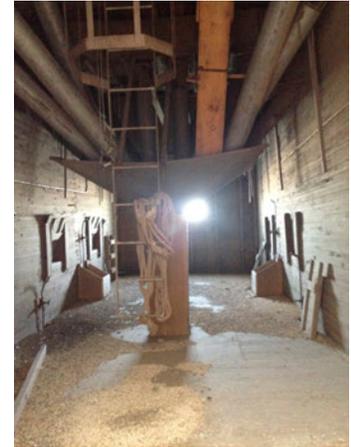
CIRCULATION DIAGRAM

- ▲ wheelchair access
- ▲ path accessible by foot

Interior Fabric

The character-defining elements of the interior fabric of the grain elevator consist of the cribbed construction, grain bins, mechanical systems, office/engine room, drive shed and cupola.

Cribbed Construction: The interior walls possess a distinctive texture as layers of 2'x4's, 2'x6's, and 2'x8's are horizontally stacked and spiked together. The corner cribbed construction detail is characteristic to the wooden elevator and is key in its structural integrity. Both the operator and visitors experience these cribbed walls throughout the main floor of the elevator. The cribbed construction will remain the primary structure through adaptive reuse, with the exception of a self-sustaining steel structure that supports a glass elevator. Minimal openings will puncture the cribbed construction at various instances around the structure (see "openings" in "Exterior Fabric").



Interior of Sintaluta grain
elevator



Interior fabric of physical model

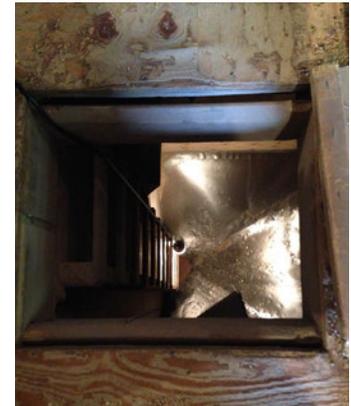


Grain Bins: Arguably, the bins are the most important spaces within grain elevators. The most intriguing aspect of the adaptive reuse of wooden grain elevators is the potential re-purposing of the unique spatial qualities of the grain bins. These vertical shafts, stretching six to eight stories in the air, once endured the constant stresses of the movement of grain as they were filled and emptied are imagined as enabling people to dwell within spaces that have otherwise been un-experienced by humans. The adaptive reuse will provide the opportunity to dwell in these un-human spaces through the calculated division of spaces and placement of floor plates and staircases. A central staircase occupies one entire bin – from grade to cupola. Openings in the bin walls lead from the main staircase to interstitial platforms and stairwells within other cribs. The narrow slit windows will allow visitors to experience different perspectives of land and sky as they journey through the interstitial spaces in the bins.

While the majority of the space within the elevator is public, two guest suites will be created in the shoulders at the top of the grain bins. These studio spaces will be fully serviced by the mechanical, electrical and plumbing systems that are run alongside the elevator.



Cribbed walls of a grain bin in the Horizon, SK Federal elevator



Hopper grain pit in Indian Head elevator

Grain-Polished Wood:

From the leg of 100-year-old
wooden crib grain elevator near
Ponteix, Saskatchewan



Mechanical Systems: Mechanical systems are located throughout

- 44 Fundamentally, the grain elevator is an industrial building housing machines for the cleaning, handling, and distribution of grain.
- 45 The endless belt with buckets runs vertically through the grain elevator from top to bottom.
- 46 Originally, ladders would have been used to climb all the way to the top (six to eight stories up), however most have been replaced with mechanical lifts enabling the elevator operator to access the machinery in the cupola.

the structure: from the cupola at the top to the hopper pit below grade and in the adjacent engine room.⁴⁴ The most important mechanism is the elevator leg—the device that coined the term “grain elevator”.⁴⁵ It is visible from the main floor and from within the cupola. The original elevator leg and man-lift (directly beside the leg),⁴⁶ will be replaced by a glass elevator for people, ensuring the new community space is entirely accessible for people with disabilities. This new glass elevator that lifts people to the top mimics the vertical cycle of the grain. Further, the exterior cribbed wall of the elevator adjacent to the elevator shaft will have openings enabling visitors to experience the ascent and perspective of the flat prairie landscape.

Office and Engine Room : A small detached building directly

- 47 The original engines were steam powered until the less labour-intensive gas engines replaced them (Indian Head history book, p.68). Due to the fire hazard of the engine, it was safe practice to build this secondary structure of brick or clad it in metal (<http://www.thecanadianencyclopedia.ca/en/article/grain-elevators/>).

adjacent to the elevator served as the office and engine room. This distinctive space did not directly handle grain rather it was used for grain industry business such as recording grain quality, shipment dates, and elevator maintenance/condition reports. It also housed the engine that powered the elevator.⁴⁷ The humanistic nature of the elevator office and engine room produced a space where farmers,



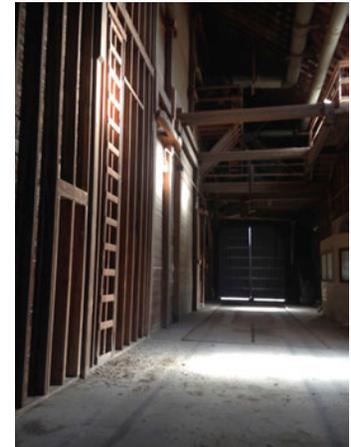
Leg of the grain elevator in Indian Head

their families and community members congregated (Dommasch 10). The adaptive reuse of this space will transform it into a community kitchen. The kitchen will be physically linked with the community gardens and will be accessible to the community. The kitchen will also be used by the café/bakery housed in the cupola and for catering of community events hosted in the elevator.

Drive Shed: The drive shed refers to the covered portion of the driveway accessed by ramps on either side of the elevator. This part of the elevator structure is not defined by cribbed construction; rather it is built by wooden stud-framed walls with siding. The scale of this space—originally to accommodate grain trucks—encourages a large lobby for the new community space as it connects the elevator with the office. This is also where tourist information may be located. Displays such as historic images, maps, and artifacts may occupy the interior wall space of the drive shed. The large hinged doors will remain operable to open the space up during the summer months however smaller doors are punched into the larger doors to control the cold in the winter.



Drive shed of Indian Head grain elevator



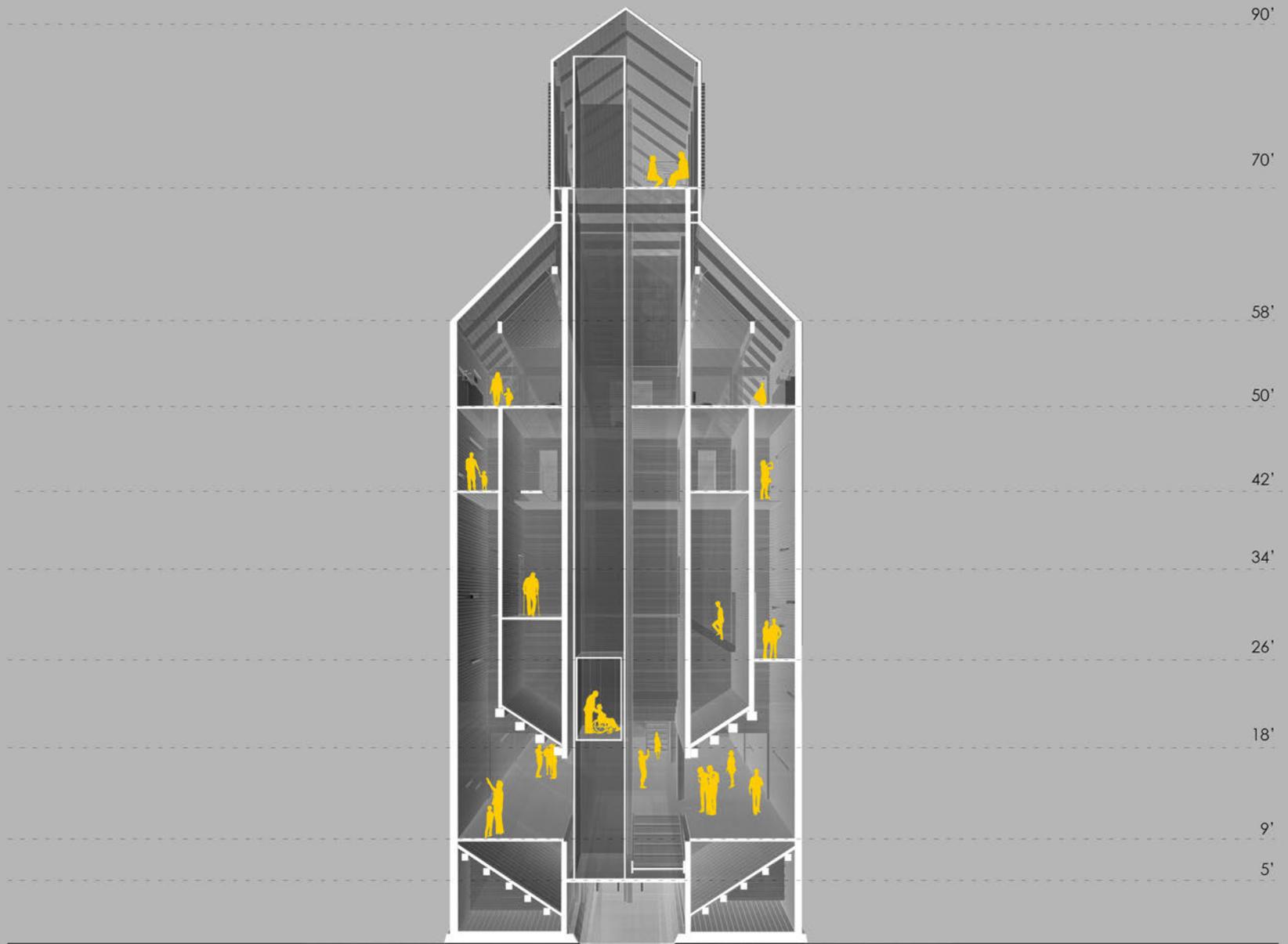
Drive shed of Sintaluta grain elevator

Cupola: The cupola—also known as the headhouse—is the small space at the very top of the elevator. Historically, the distributor used the space to funnel grain into the appropriate bin based on placement by elevator operator. There are very few people who have visited the cupola of an elevator other than the operator himself. The incredible view from the headhouse obliges that a public program occupy the space to share the view. A café/bakery features a quiet atmosphere in which Indian Head residents and visitors can experience the mesmerizing view. Simple punched windows are not uncommon in the cupola of wooden grain elevators as the natural light allows elevator operators to make adjustments to the mechanical equipment without bringing their own source of light.⁴⁸ Floor to ceiling windows will be cut into either side of the cupola with large operable sliding wooden doors to completely hide these windows when closed and present prairie panoramas when open.

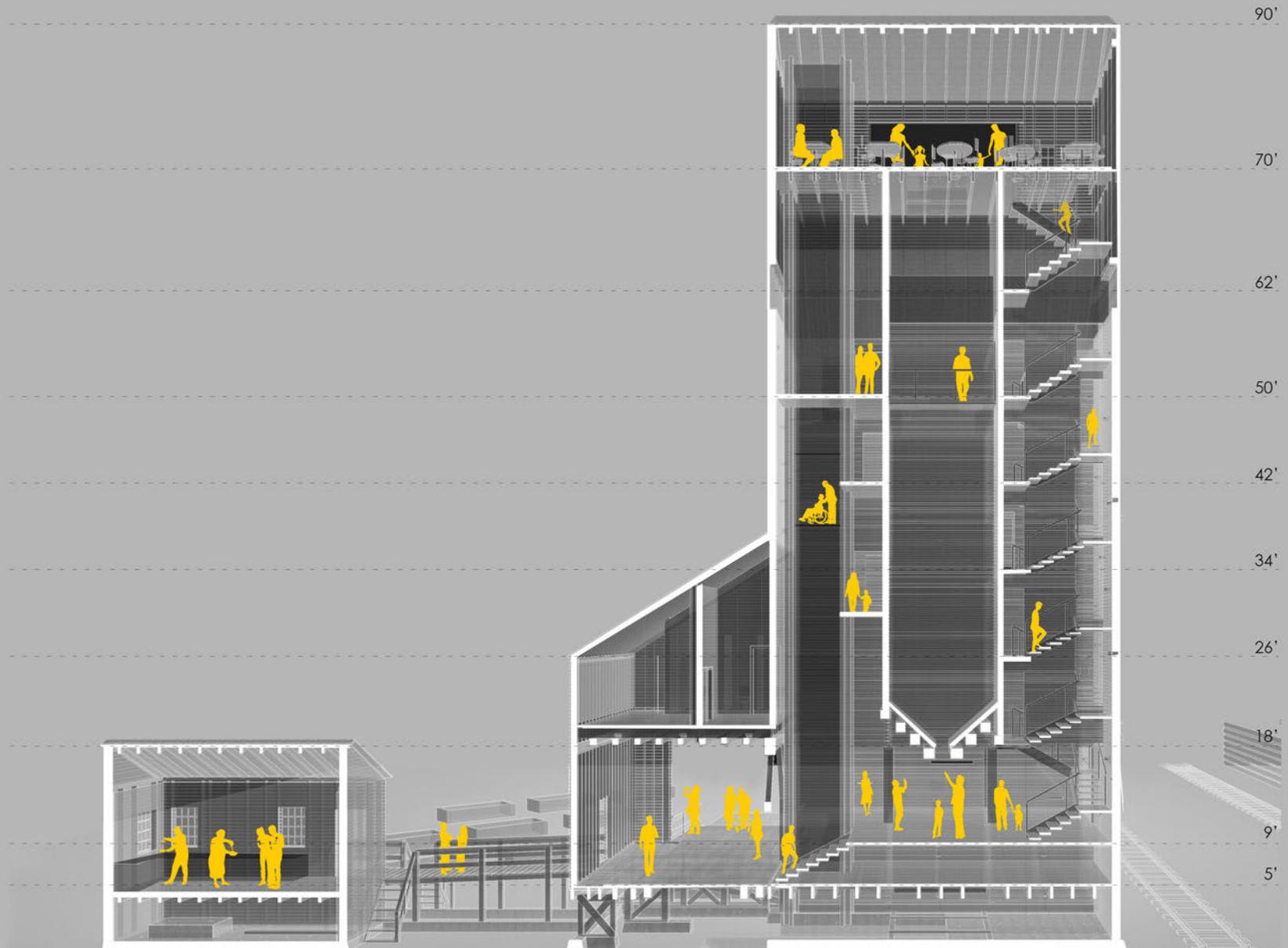
48 Kerosene lanterns were used for many years and were the cause of many grain elevator explosions as grain dust is highly flammable.



View from the cupola of a Saskatchewan grain elevator



Section through grain elevator illustrating architectural interventions



Cross section through grain elevator illustrating transformation of spaces for grain to spaces for people

Exterior Fabric

The character-defining elements of the exterior fabric of the grain elevator consist of the form, siding and cladding, openings, exterior paint, and roof.

Form: The solidity of the structure comes from its simple geometric form and featureless façade. The modular shape of the wooden grain elevator is derived strictly from form adhering to function. The form is the most identifiable element of the grain elevator so it is critical that it remains predominantly intact during the adaptation, with the exception of small window openings (see “openings” below).

Siding and Cladding: Wooden grain elevators may be clad in wood siding or aluminum sheets. Both types of cladding are nailed directly to the exterior face of the wooden crib structure. The Saskatchewan Wheat Pool elevator in Indian Head is clad in a deep white-painted wood siding. The material and colour of the siding is distinctive to the grain elevator, thus, it will be maintained through the adaptive reuse. As the new programs require a contemporary building envelope, the siding will be removed, a secondary framing structure



Form of the elevator and its adjacent annex



Cribbed structure exposed under aluminum sheet siding

built onto the cribbed walls, new building materials installed, and the siding reattached. This allows for both in the interior cribbed walls to be exposed as well as the original siding to retain the image of the elevator.

Openings: Since the solidity of the wooden siding accentuates the form of the elevator, window openings will be cut in horizontal strips to resemble the siding and not detract from the standard elevator form. The length, height and placement of the openings on the wall will be determined based on the specific programs within the elevator.

Exterior Paint: “Until the 1960s all elevators were painted CPR red... Afterwards, companies chose corporate colours to identify their elevators” (Ross).⁴⁹ The name of the town was painted on either side to face incoming and outgoing trains to inform them of the town name. On the other two sides, the name of the grain company was painted for the farmers and town people to see. During adaptation, the grain elevator will get a fresh coat of white paint and retain the text “Indian Head” in red, encouraging reminiscence of its historical origins.

49 Aluminum-clad elevators were not painted however the wooden siding required paint to conserve the wood.

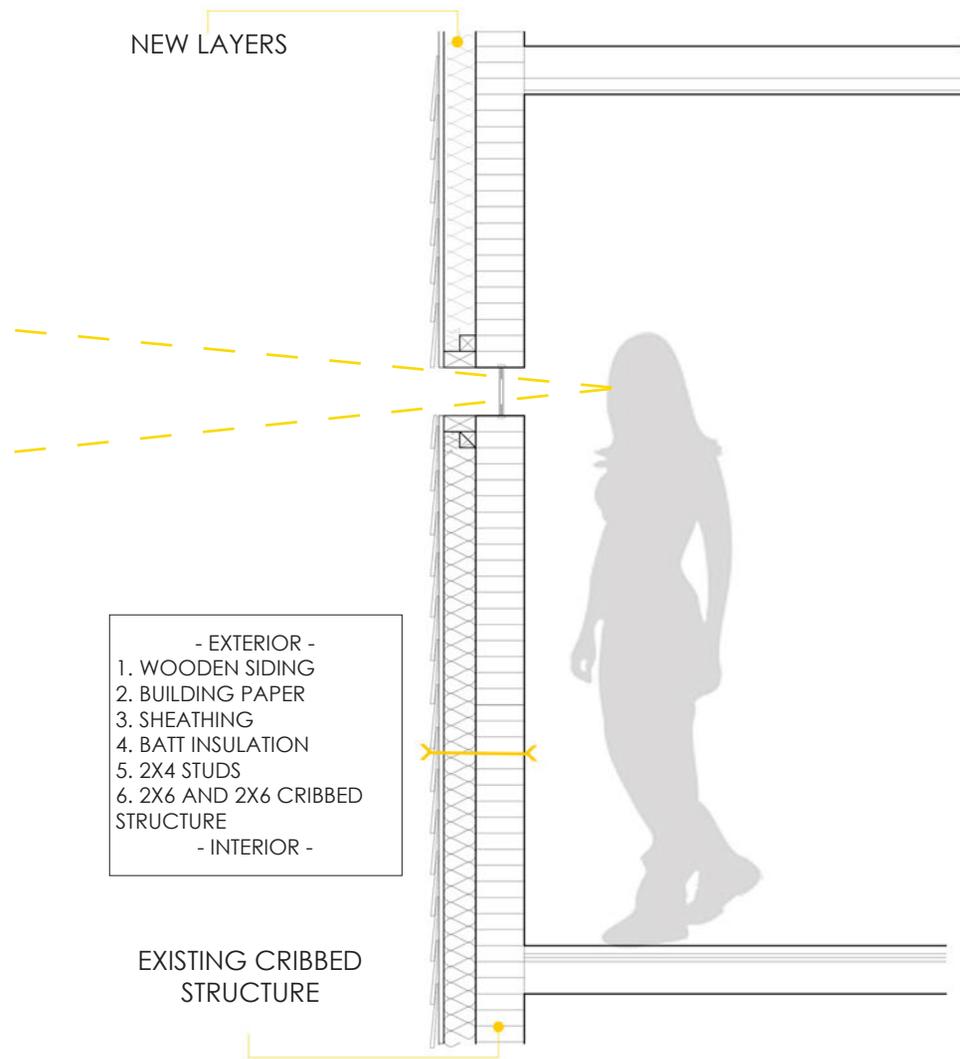


Chipping white paint on Indian Head elevator

Exterior fabric of physical model



-
- 50 This was purely based the preference of the elevator company.
- 51 The shoulders of the elevator always faced incoming and outgoing trains.
- Roof:* Elevator roofs were either hipped (until 1920) or sloped-shoulder in the following years (Ross).⁵⁰ The roof of the wooden elevator had a significant impact on the form of the building: the hipped roof produces the same elevation on all four sides where as the sloped-shoulder roof creates two different elevations.⁵¹ The Indian Head elevator's sloped-shoulder roof is clad in wooden shingles. As part of the re-use upgrade, old wooden shingles will be replaced with new shingles to increase the habitability of the structure.



Wall section detail indicating enhanced building envelope and window intervention

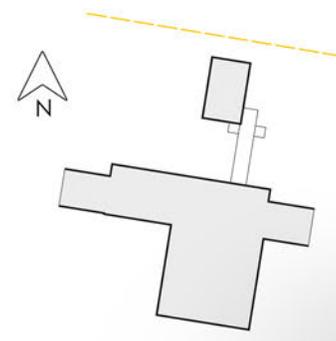
Site and Contextual Fabric

The character-defining elements of the site consist of railway tracks, the town, village or hamlet, Railway Avenue and a shelterbelt. Elevators have also inherited titles such as “prairie cathedrals” due to their scale within the expansive flat prairie landscape. While not all of Saskatchewan is flat, it is the image of the wooden crib grain elevator connecting land and sky that is dominant in art and media.

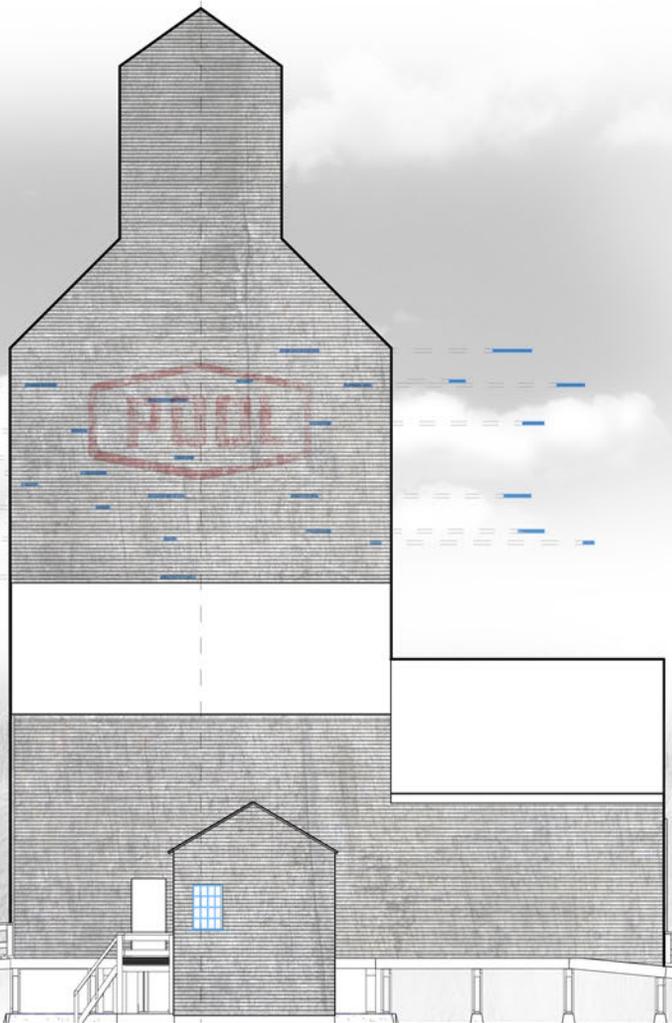
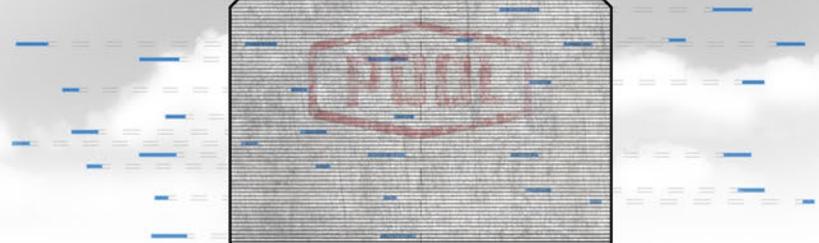
Railway Tracks: Grain elevators are rarely sited farther than seven meters away from a rail line. The relationship between grain elevators and railway tracks became permanent: one could not exist without the other. The international grain trade depended on this relationship. Most often, the elevator was placed on a siding to permit through traffic on the main line while rail cars were being loaded with grain. The unused rail siding in Indian Head will become a public path at the base of the elevators, bounding the community gardens and emphasizing the horizontal perspective of the surrounding landscape. A wooden boardwalk will be overlaid between the two steel tracks to create a smooth walking surface without deterring from its original form and function.



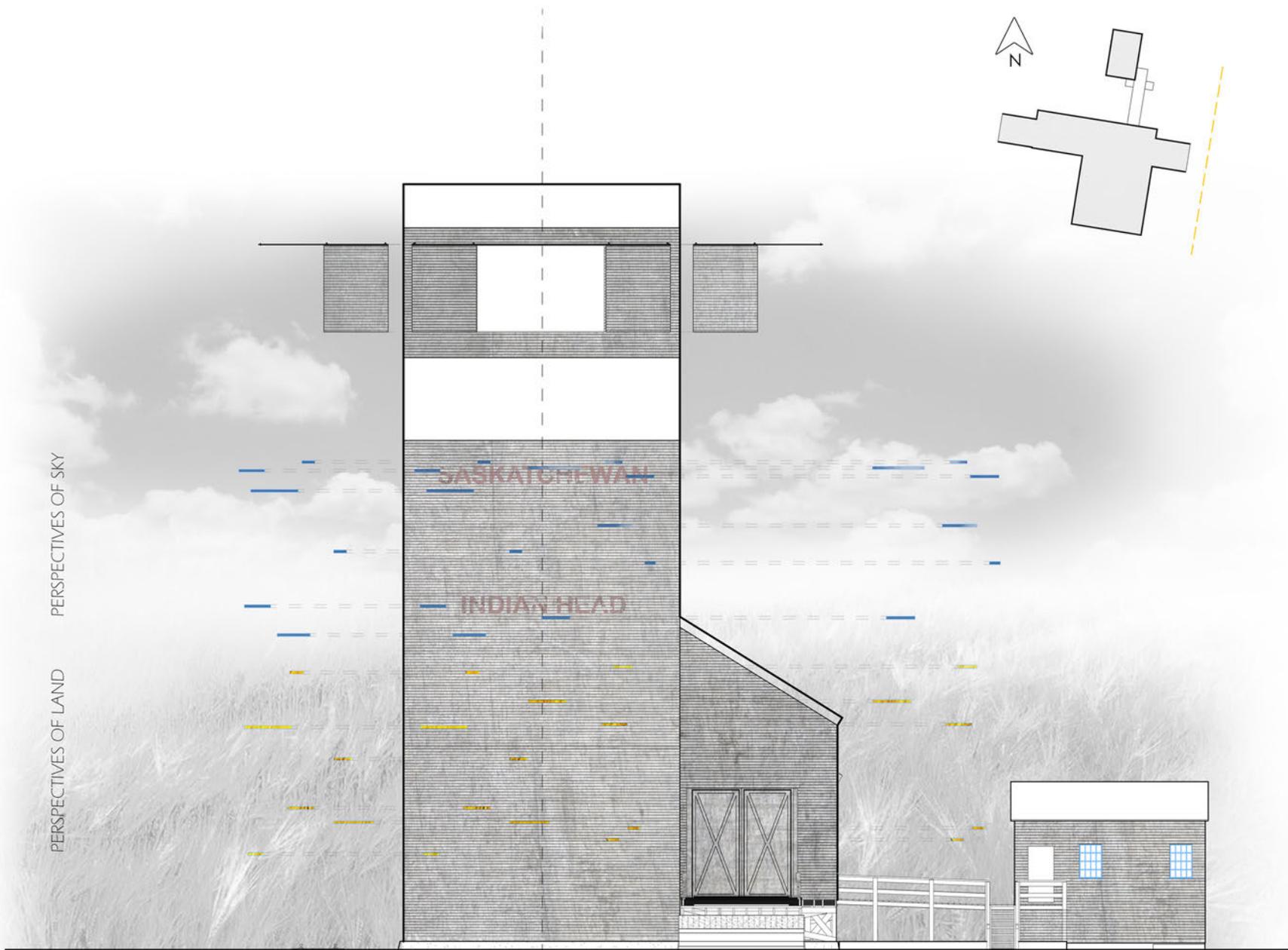
Indian Head grain elevator with four associated rail lines



PERSPECTIVES OF SKY



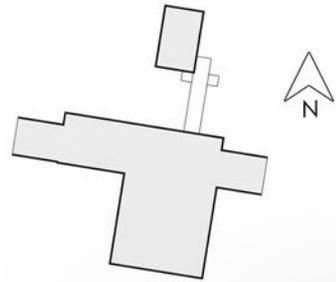
NORTH ELEVATION



PERSPECTIVES OF SKY

PERSPECTIVES OF LAND

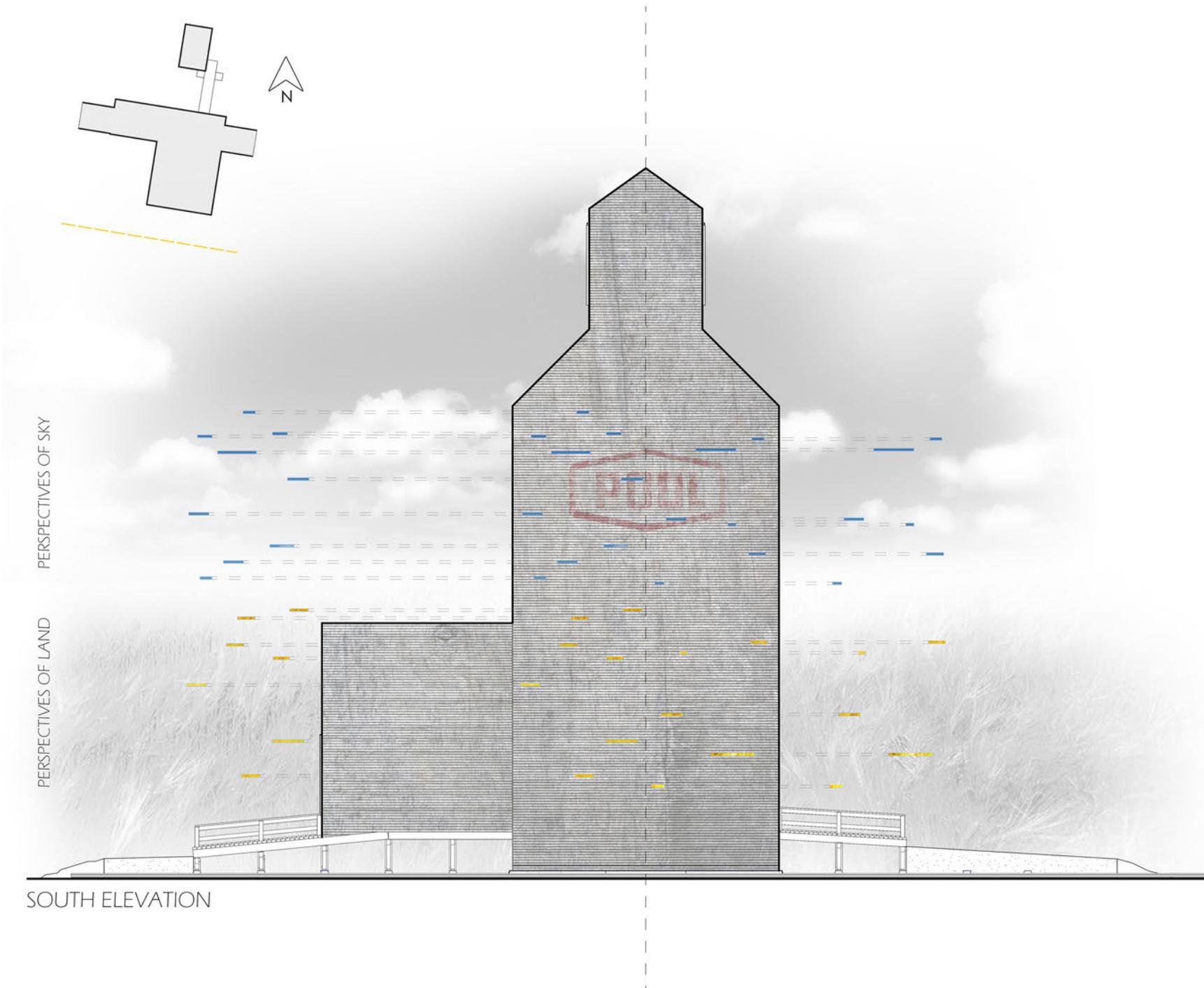
EAST ELEVATION

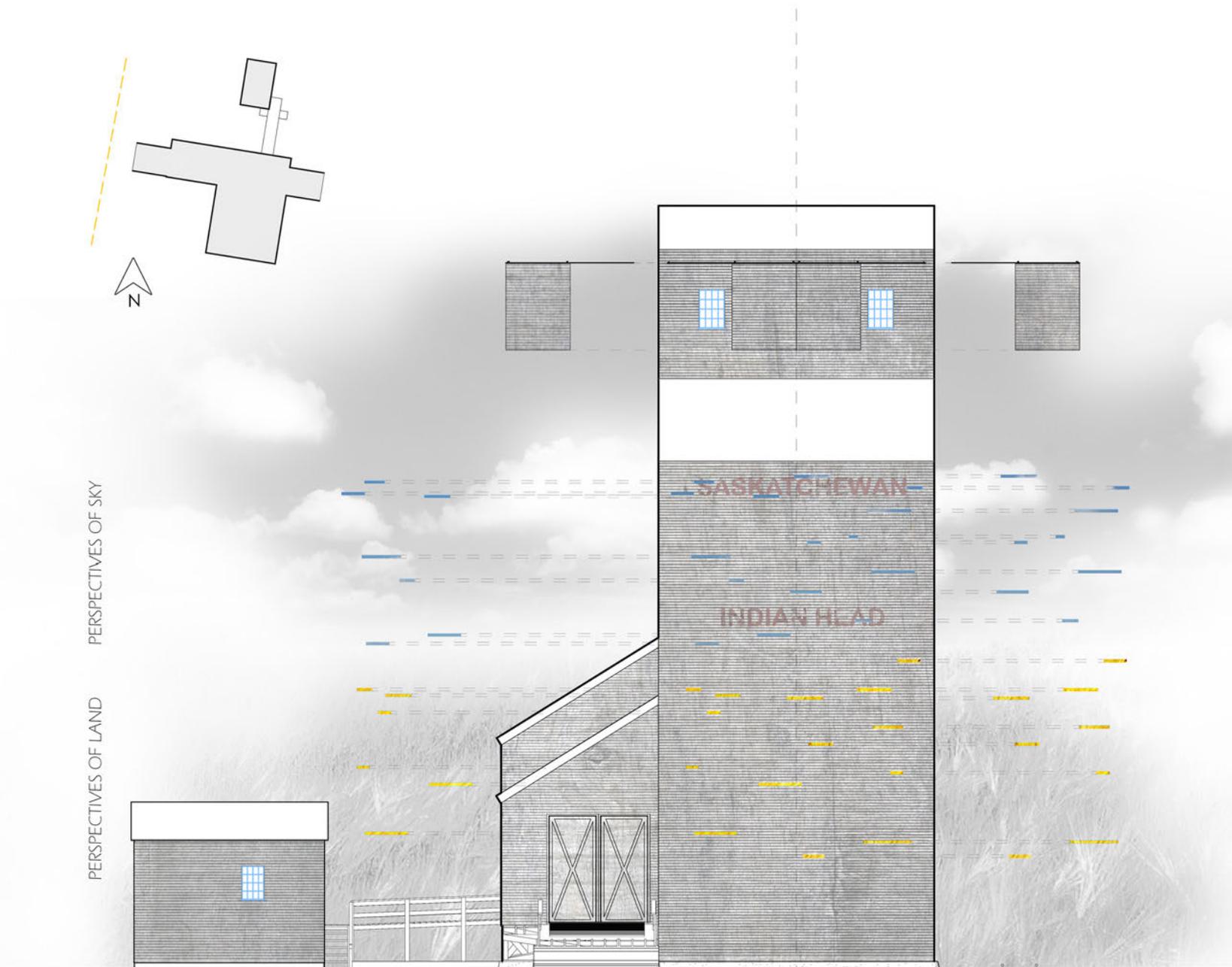


PERSPECTIVES OF SKY

PERSPECTIVES OF LAND

SOUTH ELEVATION





WEST ELEVATION

52 Pedersen's contextual criteria for grain elevators with heritage significance includes a description of a typical perspective of its position within the landscape: "...the country elevator includes the context of adjacent elevators, associated buildings, and a rail line, all located in a rural community with a grain-growing district" (Pederson 33).

Town, Village or Hamlet: Grain elevators have a physical relationship with the town, village or hamlet as its tallest structure.⁵² The physical position, verticality, prominence, and relationship of the Saskatchewan Wheat Pool elevator with the town of Indian Head will remain unchanged through the adaptive reuse. However, the new programs will generate much more activity on the site and ultimately revitalize the image of the elevator for the community.

Railway Avenue: CPR prairie town sites were designed with Railway Avenue running parallel to the railway tracks, generally east west, as a sort of industrial corridor where the grain elevators were constructed. The land at the base of the elevator, bound by the tracks and Railway Avenue, will become a community garden linking the elevator with the town of Indian head and setting the stage for activity and community involvement.

Shelterbelt: Shelterbelts (planted trees around the perimeter of a building) provide protection against the elements and act as a windbreak against the powerful prairie winds. The shelterbelt around the elevators in Indian Head will be enhanced to ensure the outdoor spaces are suitable for many social activities.



Site plan for adaptive reuse of grain elevator in Indian Head

Fire Suppression and Egress

Given the severity of risk in grain dust combustions, all grain dust will be removed from the elevator. This will enhance the air quality of the interior spaces as well as minimize the risk of fire. The new enhanced building envelope will also include fire-proofing materials. A minimal sprinkler system may be included in the drive shed as well as in the guest suites and coffee shop. This system will follow the other HVAC systems vertically through the glass elevator shaft.

As it is presented for Indian Head, the elevator only has one primary stair for access and egress to the upper floors of the elevator. If a second form of egress is required for other occupancies and programs, an additional stairway for emergency egress may be installed on the exterior of the elevator using a minimal steel construction.



Tourist information
centre in drive shed



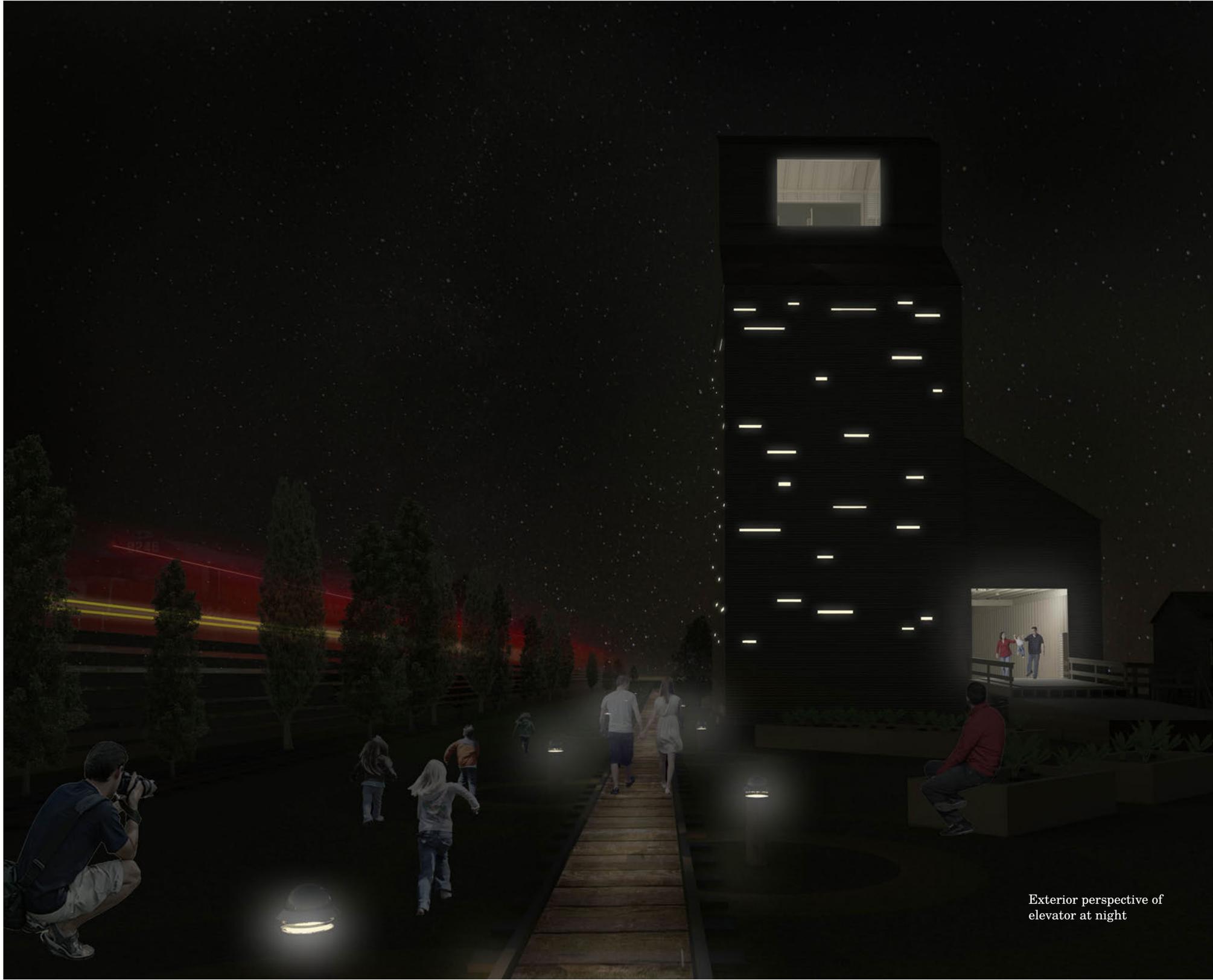
Community space at the base of the grain cribs



Perspective of interior
grain cribs



Guest suite



Exterior perspective of elevator at night

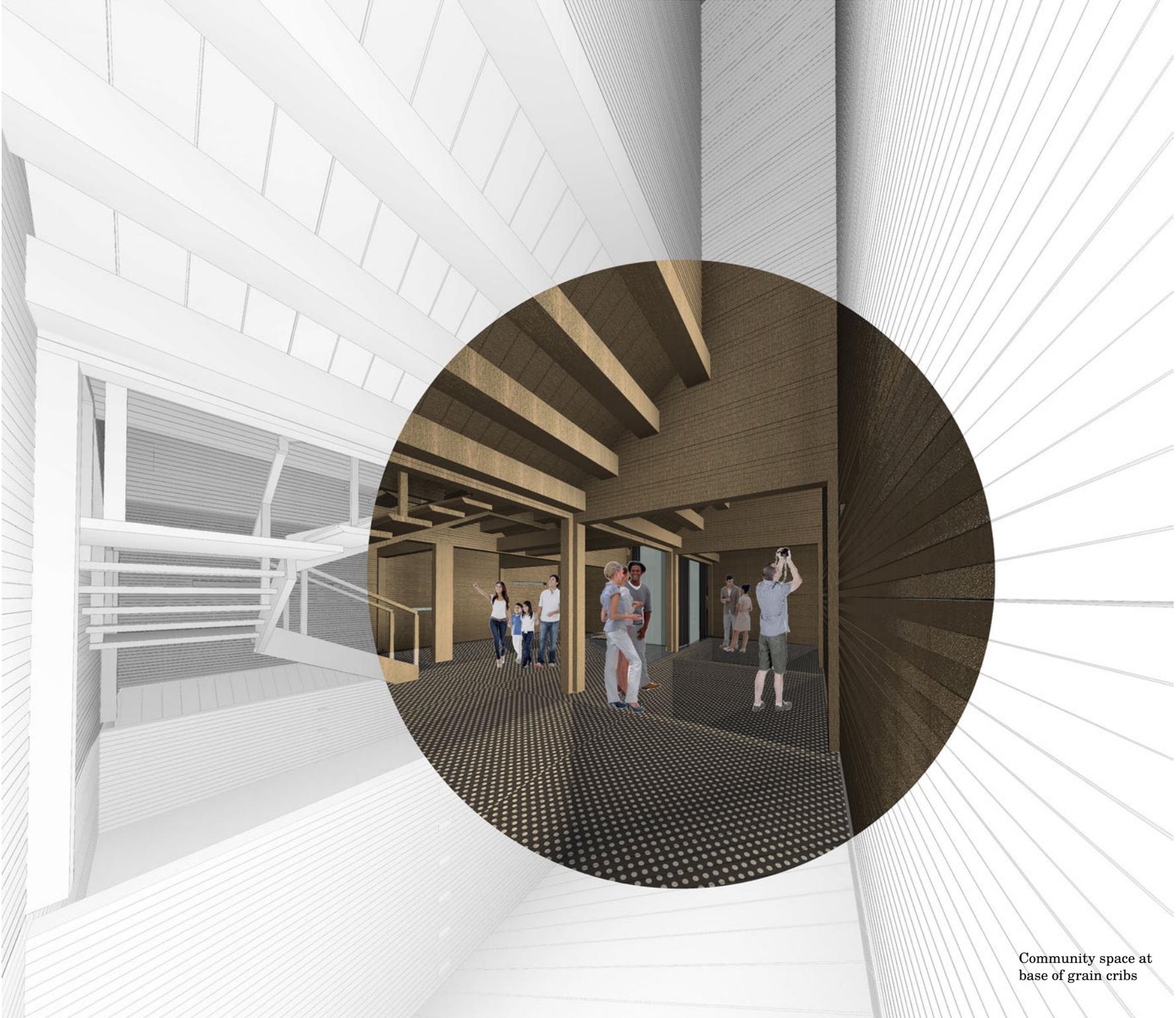
Summary

The adaptive reuse of the wooden elevator will ensure that character-defining elements are sustained. An individual's experiences in different spaces of the grain elevator are vital in the evaluation of tangible and intangible cultural heritage for prescribing architectural interventions. The elevator's dramatic wooden atmosphere creates an unparalleled spatial character that will be able to be experienced by the community through the addition of floor plates and circulation in the bins. Only minor modifications to the exterior materiality and form will be made. The product will be an important public space for the town establishing a reminder of the past.

The elevator's living heritage, through change, memory, narrative, identity, and cultural value, will continue to connect Prairie people to the land. Most importantly, the adapted architecture of the grain elevator will generate social interaction promoting co-operation and strengthening community.



Bakery and coffee shop
in cupola



Community space at
base of grain cribs



Light study within grain cribs

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CHAPTER 5



CHAPTER 5: TO STAY OR TO GO

Every year, wooden grain elevators across the prairies are being abandoned at an alarming rate because they are no longer an economically viable mode of grain handling and because of age-related deterioration. As a result, there is an increasing need to consider architectural interventions leading to their adaptive reuse. The elegant simplicity of an elevator's construction and the broad replication of its structural design permits consideration of their adaptive reuse in any locale. This chapter provides a rationale for the preservation and transformation of the Indian Head elevator.

There is potential for each town in the Saskatchewan to reuse its grain elevator on its existing site. However, if the community

does not have the resources to transform their elevator *in situ*, it is possible to move it to a more suitable location. This chapter also introduces the option of relocating elevators, culminating with the concept of urban elevators, where I propose to move elevators from around the province onto a new site in downtown Regina.

To Stay in Indian Head: Justification

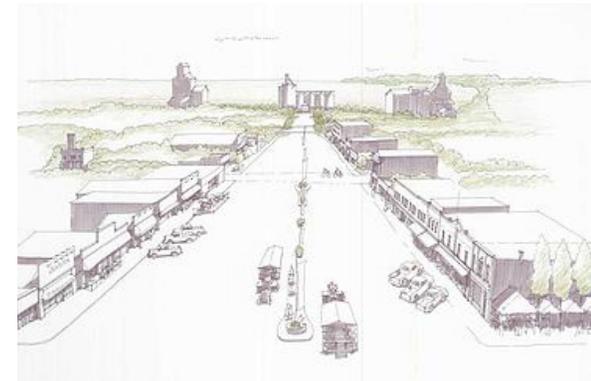
There are numerous justifications for examining the adaptive reuse of the grain elevators in Indian Head. As described in chapter 2, historically the grain elevators were a symbol of the prosperity and agricultural wealth of the farms in the area. Their heritage is indistinguishable from the development of Indian Head: their function grew from the economic viability of prairie life; they were central to the formation of grain co-operatives; the elevators became social places that formed a strong community. Arguably, Indian Head has the richest and most influential agricultural history in the Province of Saskatchewan.

According to Statistics Canada, Indian Head has grown 11% in population from 2006 to 2011 (Statistics Canada). New construction

53 See Sun View Place Condo:
<http://www.sunviewplacecondo.ca/welcome-1.html>

and infrastructure are being added to accommodate the increase in population. The town's first low-rise condominium housing complex⁵³ was completed in 2014, attesting that densification is suitable in rural areas. With the continued increase in population, there is a pressing need for more housing and hotels.

In 2012 the Town of Indian Head received support from the Saskatchewan Ministry of Parks, Culture, and Sport to fund the Main Street Revitalization Initiative. The initiative has had major benefits on the town from rehabilitating street-front façades to building a strong sense of community through collective activities and accomplishments. The Main Street project offers a strong foundation for an elevator adaptive reuse project. Backed by resources and a dedicated population, Indian Head has proven to be a community that genuinely cares for their living heritage. Further, since the town is also situated in Heritage Canada's 'Saskatchewan Living Heritage Regions', its vibrant history is sure to continue to influence the growth and progressive nature of Indian Head.



Sketch of Indian Head Main Street with grain elevators in the distance

A variety of businesses are choosing Indian Head for their offices stimulating economic growth. For example, Tara-Leigh Heslip – Program Coordinator of the Indian Head Main Street Revitalization Project - noted a film company that specializes in converting reels of cinema film into digital video recently relocated from Los Angeles into the historic bank on Grand Avenue. Indian Head's lively character is ideal for a wooden grain elevator adaptive reuse project.

It is likely there are other communities in Saskatchewan that would benefit from the adaptive reuse of their elevators. For example, towns with growing and active communities, and ageing elevators, such as Wolseley, Gravelbourg, and Pense would be ideal sites for expanding this project.

54 Jacks are placed under each corner of the elevator and it is slowly lifted from its footings. Once it is high enough, a large flat bed truck positions itself under the elevator and it is lowered on to the truck and secured. See the National Film Board of Canada documentary *Canadian Vingettes: The Move* that shows the process of moving a wooden crib grain elevator (Bauman).

Moving an Elevator

The structural integrity of a wooden grain elevator allows it to be moved from one site to another.⁵⁴ Moving an elevator is not uncommon in the prairies. In fact, the Indian Head elevator that is the model for the adaptive reuse project described in chapter 4 was originally built in the Village of Abernethy and moved 45 km to its present site in Indian Head when the branch railway line through Abernethy was closed. In the right lighting, it is possible to make out the word “Abernethy” under the chipping white paint.

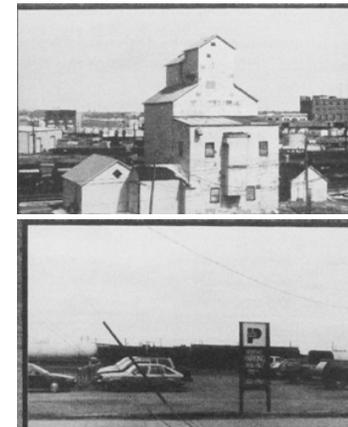


Moving of Wawota Saskatchewan Wheat Pool Elevator to Dalzell, SK in 1962

To Go to Regina: exploration and proposal

Selecting a wooden grain elevator from a rural town and moving it into urban Regina would sustain their presence in the Prairies for the years to come.

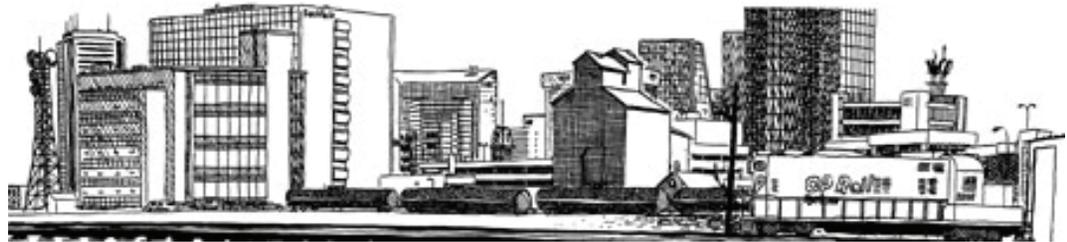
History: Regina's last remaining elevator was demolished in 1996. It was constructed in 1911 and was in use until the year of its demolition (Brennan 18-19). It was located at the corner of Albert Street and Saskatchewan Drive, adjacent to the railway. Interestingly, three years earlier, Dr. Bill Brennan from Heritage Regina published an article in *Façade* (Saskatchewan Architectural Heritage Society's journal) titled "Are Saskatchewan's Grain Elevators Doomed to Extinction?" discussing the last remaining elevator in Regina with no immediate threat to its demolition. Brennan called for "re-use and/or relocation options for Regina's last surviving elevator" in which there was no response (Brennan 19). The following proposal imagines the return of grain elevators to downtown Regina in response to Brennan's call for reuse and relocation more than 20 years later.



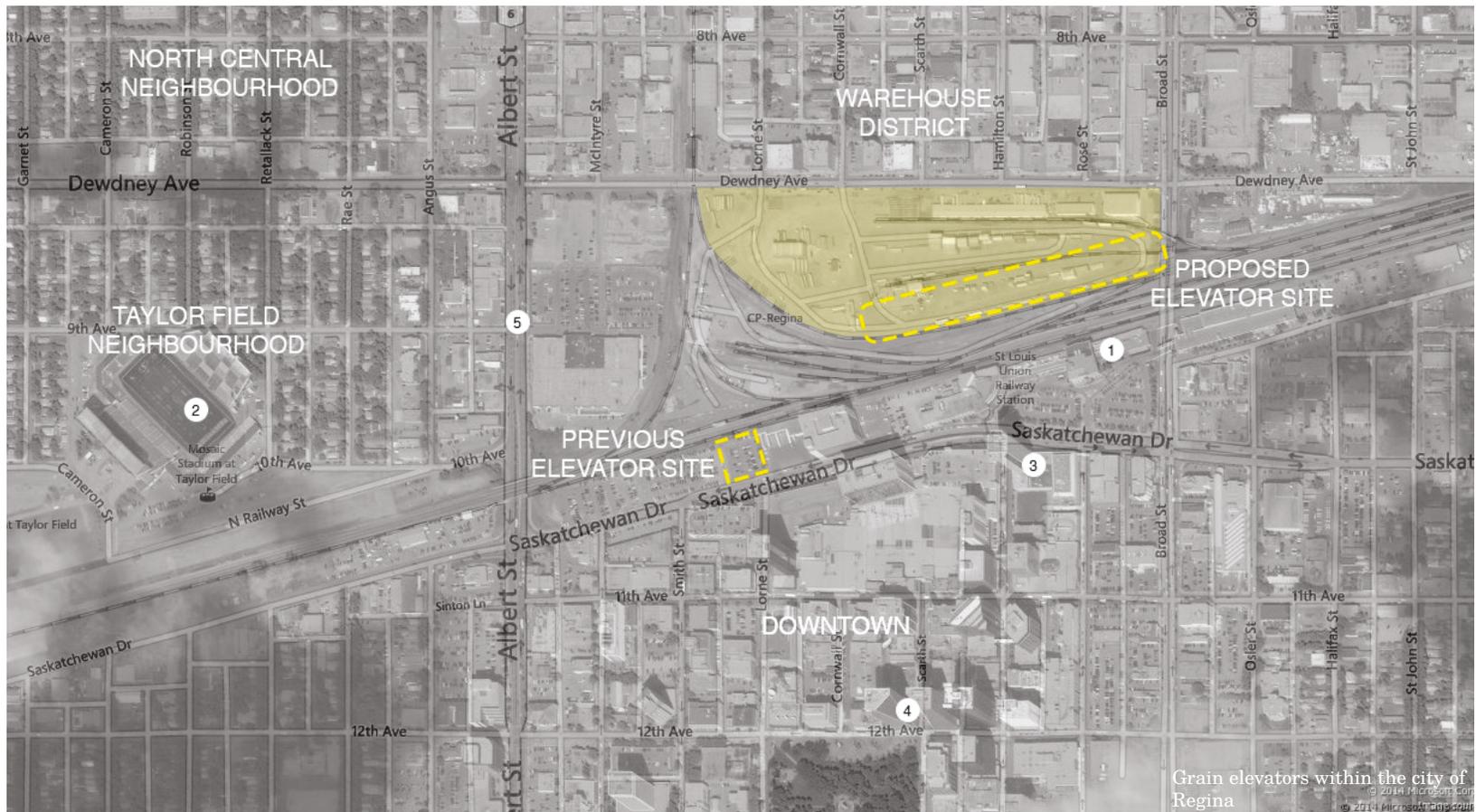
Last remaining elevator in Regina demolished for real estate - is now a parking lot (Russell).

Site: In the summer of 2014, the City of Regina purchased what is known as the ‘CP Intermodal Lands’ from the Canadian Pacific Railway. The site is predominantly used by the CPR for storage of shipping containers and empty rail cars. The railway played an influential role in the development of Regina: “the railway was the driving factor for the City we see today... and neighbourhoods that border the railway are the cornerstones of our collective built heritage” (City of Regina 13).

This is an ideal site for the urban elevators proposal for a variety of reasons. First, this site is directly across the tracks from the site of the last remaining elevator in Regina, thereby contributing to the continuation of Regina’s grain elevator living heritage. Secondly, the site’s immediate proximity to downtown, combined with the size and shape of the parcel of land, warrant prominence within the fabric of the city. The adjacent warehouse district has recently been transformed into a vibrant neighbourhood, with many warehouses converted into luxury residential lofts. The energy and revitalization from this neighbourhood will have a direct and positive impact on the redevelopment of the Intermodal Lands. Since the grain elevators are “warehouses” for grain, they fittingly suit a warehouse



Last remaining elevator in Regina demolished in 1996 (Collier).



Grain elevators within the city of Regina

district location. Finally, the fundamental relationship between the grain elevator and the railway exists on this site.

Regina Revitalization Initiative: The City of Regina’s Revitalization Initiative, released in 2012, focuses on three distinct projects—the Stadium Project, the Taylor Field Neighbourhood project, and the Railyard Renewal Project—all with the intent of revitalizing Regina’s core. The Railyard Renewal Project, in particular, calls for “an area in which the public realm has a high profile and inspires civic pride” and a “mixed use development to foster innovation, creativity and cultural expression” (City of Regina 7). The initiative also proposes a physical link between the site and downtown in the form of a pedestrian bridge over the railway tracks. Regina’s entertainment district is also a major factor in the future development of the site, as a large portion of Regina’s event venues and attractions are located within a 5 km radius of the site: Casino Regina, The Brandt Centre, Evraz Place, Dewdney Avenue bars and clubs, and Mosaic Stadium – home to the Saskatchewan Roughrider football franchise. Finally, the initiative outlines low to mid-rise density and mixed-use programs for the site with an emphasis on affordable housing (City of Regina 12).⁵⁵ It is in within this section of land that the urban elevators could be located.

55 See Regina Revitalization Initiative website for more information: <http://www.reginarevitalization.ca/railyard-renewal-project/location/>

Programming and Design: An urban site in Regina maximizes wooden elevator adaptive reuse potential. Consider an elevator row (four or more wooden elevators assembled side by side) that are repurposed as office space, banks, hostels or hotels, retail shops, restaurants or cafes, and housing. Multiple elevators on the site would respond to the larger-scale urban environment of the CP Intermodal site in downtown Regina. Agriculture and farming could follow suit and make its way into urban Regina in the form of community gardens at the base of the elevators. A shelterbelt will be created to filter the still active railway tracks from the elevator row.

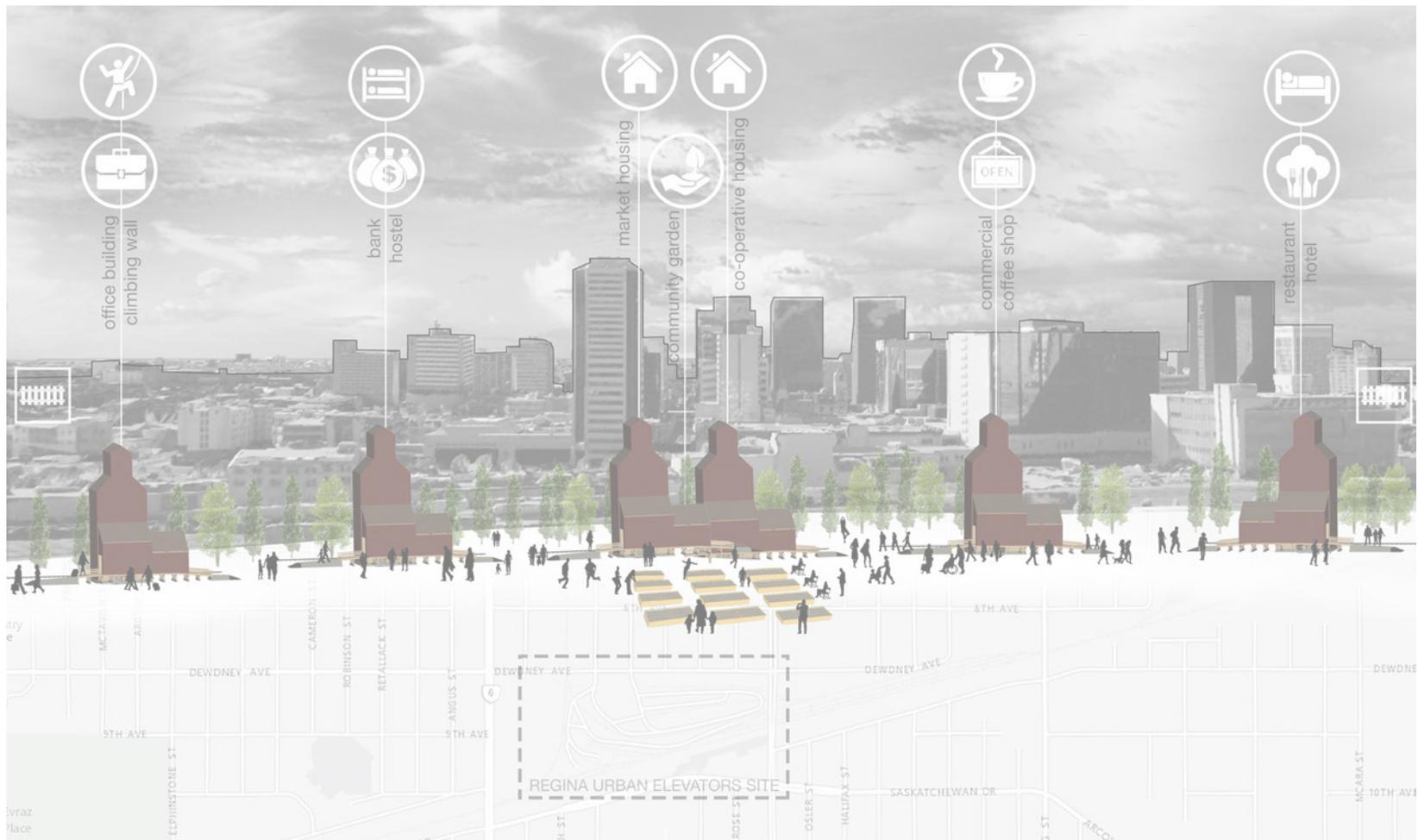
The project would foster prairie identity in collecting and assembling fragments of the province in its capital city. It would also have strong cultural, social and economic benefits as part of the Regina Revitalization Initiative. The urban elevator proposal juxtaposes reminiscence (thinking backward) and innovation (thinking forward). The wooden elevators would animate Regina's skyline embodying a living heritage of the collective past and future.

Summary

There are opportunities for the adaptive reuse of wooden crib grain elevators in rural communities, such as Indian Head, as well as urban sites, such as downtown Regina. The concept of living heritage is embodied in both scenarios: these projects demonstrate that grain elevators are not just valuable to the rural communities in which they currently exist, but through time they have become integral to Prairie consciousness and valuable to the wider provincial community.



CP Intermodal lands in the Warehouse District of Regina (Gasson).



Urban elevators within the context of Regina

Chapter 5 Works Cited

Canada Vignettes: The Move. 1985. National Film Board of Canada.

Brennan, Bill. "Are Saskatchewan's Grain Elevators Doomed to Extinction." *Facade* 6.3 (1993): 18-19. Print.

City of Regina. *The Regina Revitalization Initiative: Proposal to the Province of Saskatchewan Including Inner-City Land Development & Mosaic Stadium Replacement Projects*. Regina: The City of Regina, 2012. Print.

Statistics Canada. "Population and Dwelling Counts, for Canada, Provinces and Territories, and Census Subdivisions (Municipalities), 2011 and 2006 Censuses." Gouvernement of Canada 2014. Web. Oct 13 2014.

CONCLUSION

Referred to as the most Canadian of architectural forms, the grain elevator is an iconic monument on the prairies and is worth saving. To date, there have been no studies that focus on the future of the wooden crib grain elevators. This thesis has illustrated the importance of the elevators in Saskatchewan's evolving culture and proposed an adaptive reuse project to sustain their presence on the prairies. When situated on both urban and rural sites, adapted grain elevators have potential to shape vibrant communities based on their tangible and intangible cultural heritage rooted in their architecture.

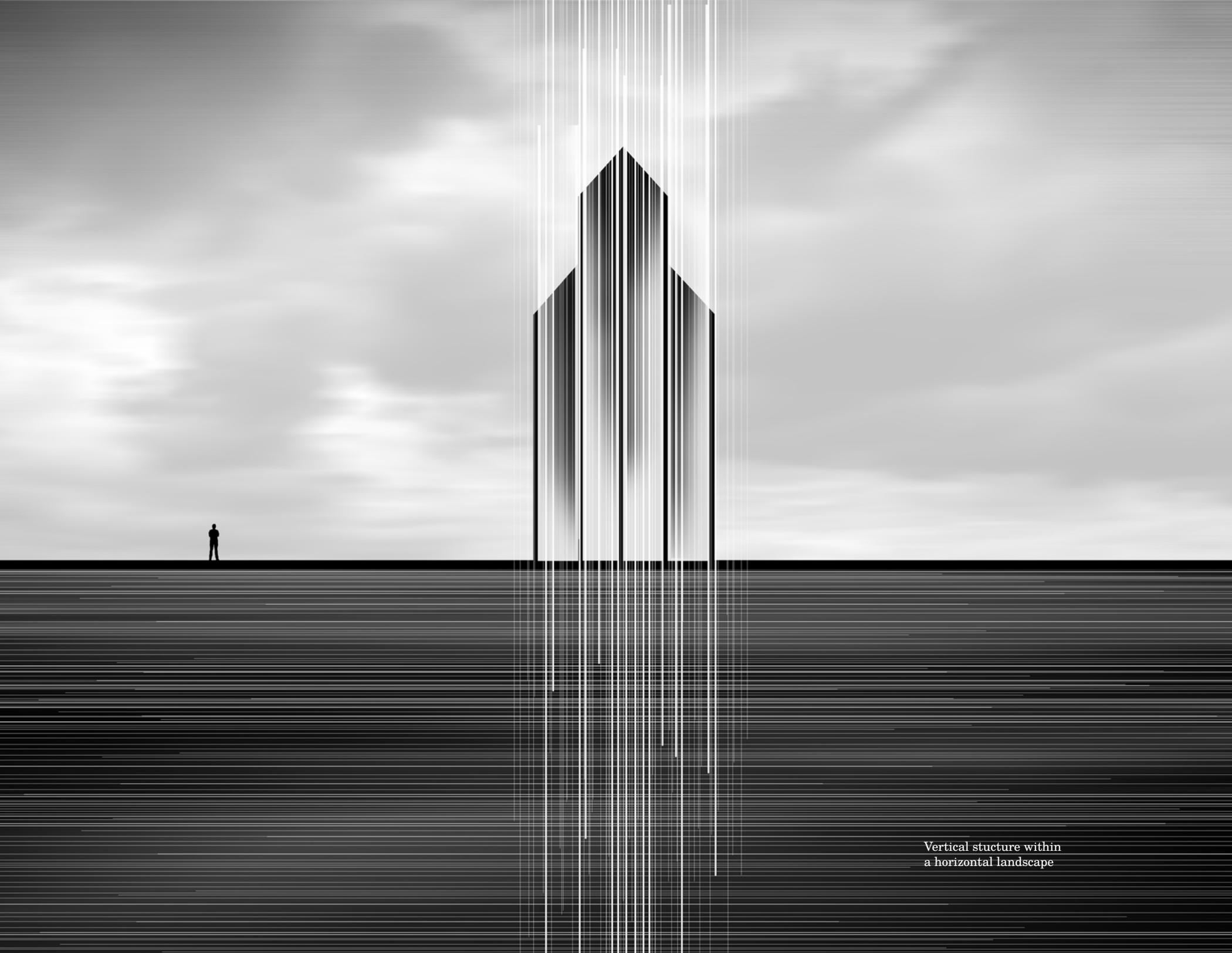
56 Architecture is not exclusively places or buildings; rather it encompasses human relationships that are part of the place or building.

Living heritage allows values to be identified, negotiated and acted upon by individuals or a community in generating life for past in the future. It is a valuable tool for an attentive evaluation of the

past as well as a catalyst for projecting the past into the future. Although the living heritage concept has a variety of nuances, its fundamental goal remains consistent: important tangible and intangible elements from the past require identification, assessment and negotiation by community driven initiatives in the present in order to sustain them in the future. While living heritage may not be a formal architectural concept, it does allow themes of change, memory, identity, narrative and value to be explored in architecture.⁵⁶ This exploration forms a deep-rooted understanding of the impact of each theme on any given architecture and allows them to be articulated and translated over time.

Wooden crib grain elevators are important architectural icons within Saskatchewan's evolving culture. On a large scale, they are a product of the co-operative agricultural economy and national rail network that shaped the Province of Saskatchewan and Canada as a Nation. On a small scale, the elevators are an architecture that has evolved from functionality to monumentality, deeply rooted in the identities of prairie communities and their people. The wooden elevators are important because they—unlike any other building, site, or artifact—illustrate tangible and intangible cultural heritage for individuals, communities, and the entire province.

Through architectural interventions, it is possible to transform the grain elevators from a place for grain to a place for people through adaptive reuse. Using the Saskatchewan Wheat Pool elevator in Indian Head as a case study, the adaptive reuse of the elevator into community spaces does far more than simply save the elevator from demolition. The new programming (specifically selected for Indian Head) and resultant architecture generates interpersonal relationships, economic viability, and community. This case study demonstrates that wooden elevators can be adapted from grain-spaces into people-spaces. The people-spaces designed for Indian Head are simply one of many possible responses. Other programs can form new architectures for different grain elevators across the prairies. The success of the adaptive reuse of wooden grain elevators is ultimately a collaborative effort on the part of politicians, public and private actors, architects, and prairie communities. After describing these reuse concepts with Ross Keith, Regina-based developer and heritage activist, he has expressed a new interest in the potential investment in the Sintaluta grain elevator -the oldest known grain elevator in Saskatchewan. It is evident that the dialogue pertaining to the preservation of wooden grain elevators in Saskatchewan is fundamental to shaping their future.



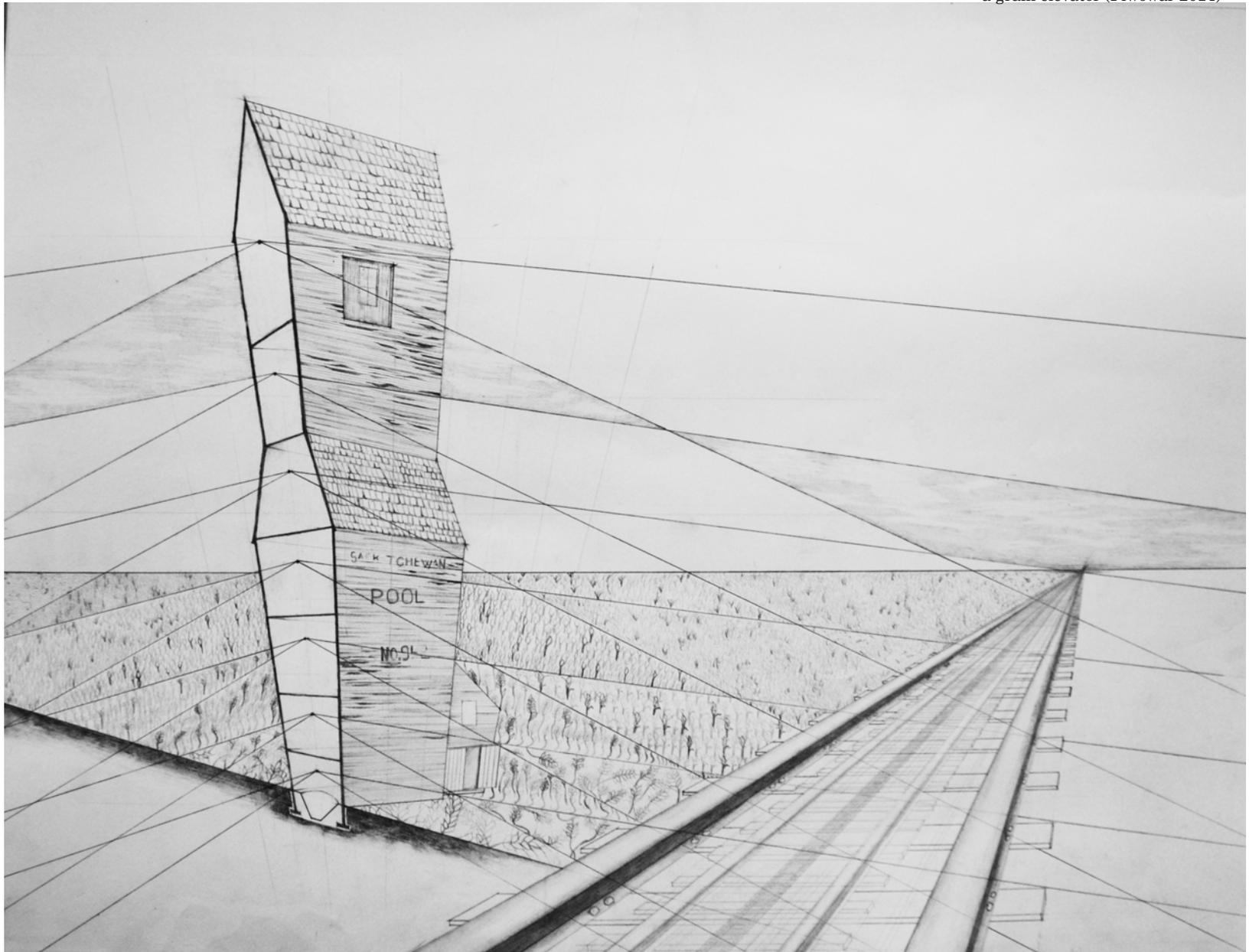
Vertical structure within
a horizontal landscape

EPILOGUE

Living heritage is a cutting-edge movement in Saskatchewan and my research on wooden grain elevators using Massey's text as a foundation has been greeted by interest and excitement from Heritage Saskatchewan. I was invited to Regina to present this research during National Heritage Week in February at the Heritage Saskatchewan Forum 2015. I was also accepted to present at the 2015 Carleton Heritage Conservation Symposium. Knowing that my research is valuable and applicable in the present conditions gives considerably more meaning to the Master of Architecture thesis. This research will play a major role in facilitating the dialogue on wooden grain elevators in Saskatchewan for the years to come.

There is a significant amount of opportunity to adapt grain elevators into community centres, office spaces, restaurants, businesses, hotels or residences across the prairies. This thesis is simply beginning the conversation within a distinctive architectural framework. Through an understanding of the technical structure and tangible and intangible cultural heritage, architectural interventions foster innovation that is distinctly 'Saskatchewan'.

Anamorphic perspective drawing of a grain elevator (Piwowar 2014)



APPENDICES

Appendix A – 1929 Wooden Crib Grain Elevator Drawings

Appendix B – Grain Processing: form + function

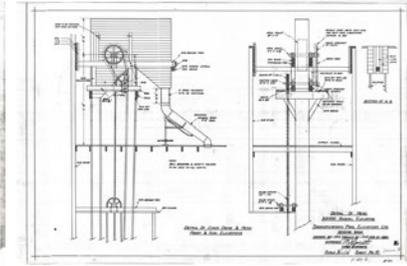
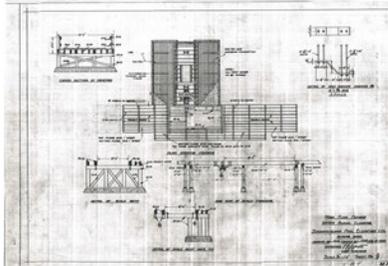
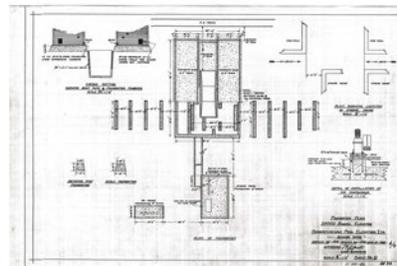
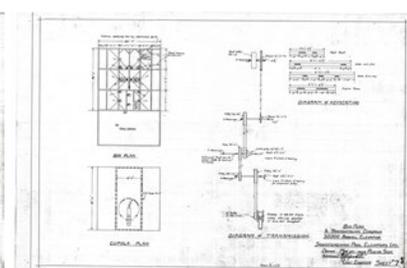
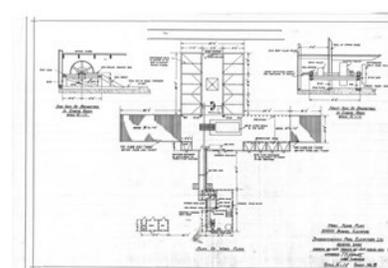
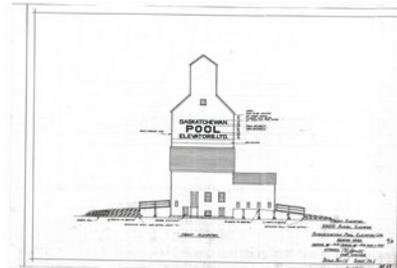
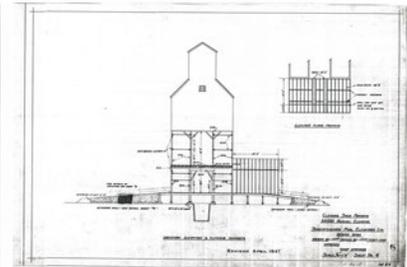
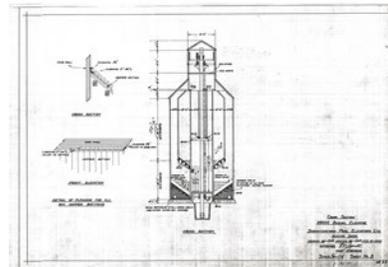
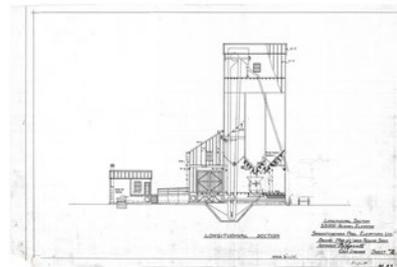
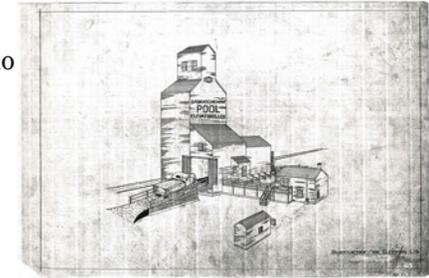
Appendix C - Elevator System Maps

Appendix D - Going Places Tourism Saskatchewan Winter 2015
Newsletter

Appendix E - Correspondance with Dr. Shauneen Pete regarding
the First Nations Perspective of the Wooden Grain Elevators

Appendix A – 1929 Wooden Crib Grain Elevator Drawings

These drawings were provided by Mr. Robert Barager who found them on the family farm.

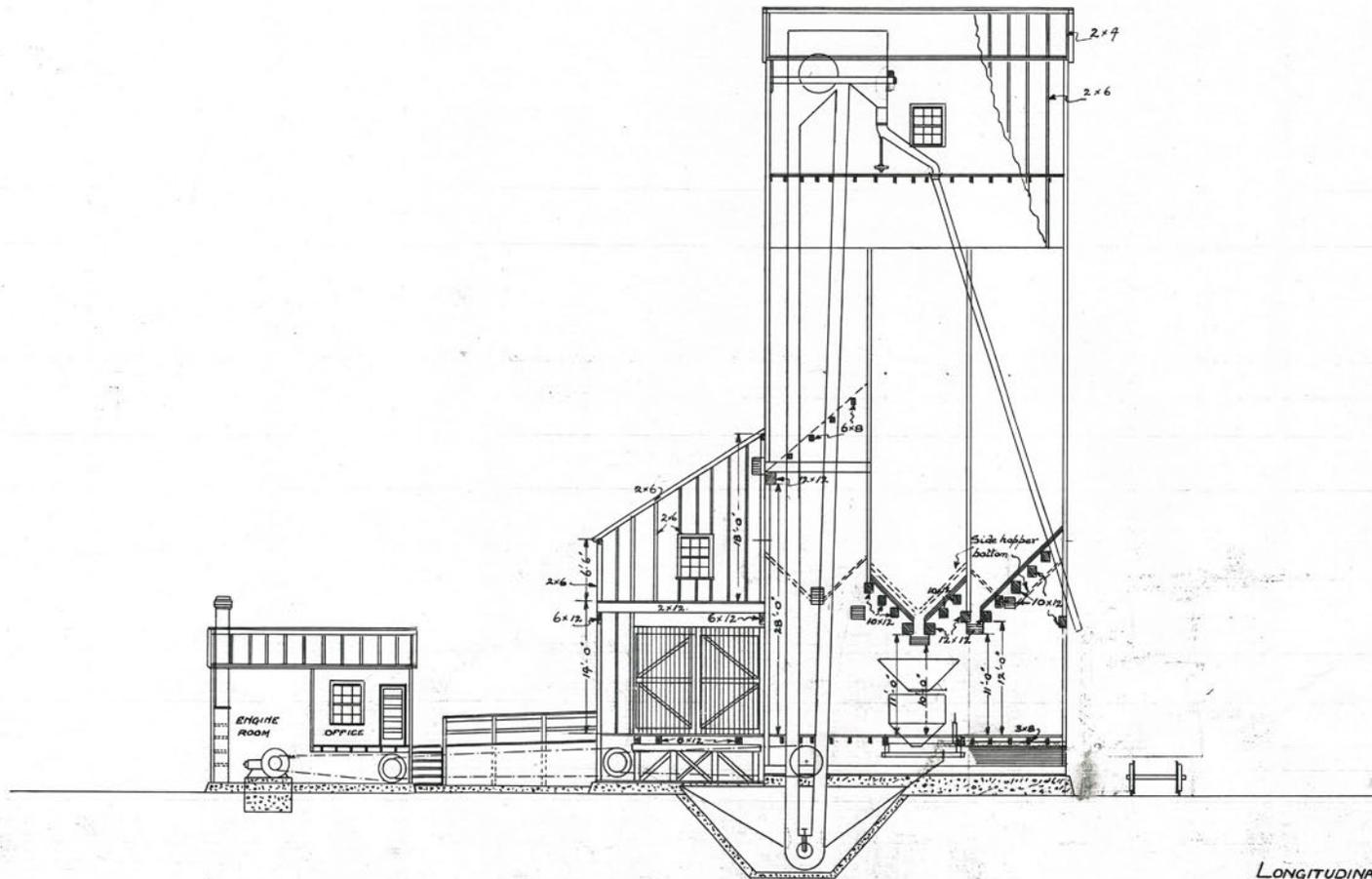




SASKATCHEWAN POOL ELEVATORS LTD.

1924/3/1929

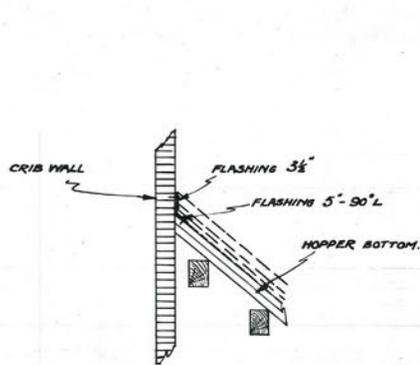
R-19-W. M. 25



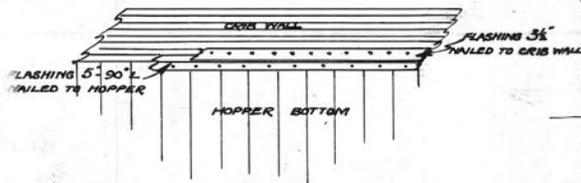
LONGITUDINAL SECTION

LONGITUDINAL SECTION
35000 BUSHEL ELEVATOR
SASKATCHEWAN POOL ELEVATORS LTD.
DRAWN MAR 23-1929 REGINA SASK
APPROVED [Signature]
CHIEF ENGINEER SHEET #2

SCALE 1/8" = 1'-0"

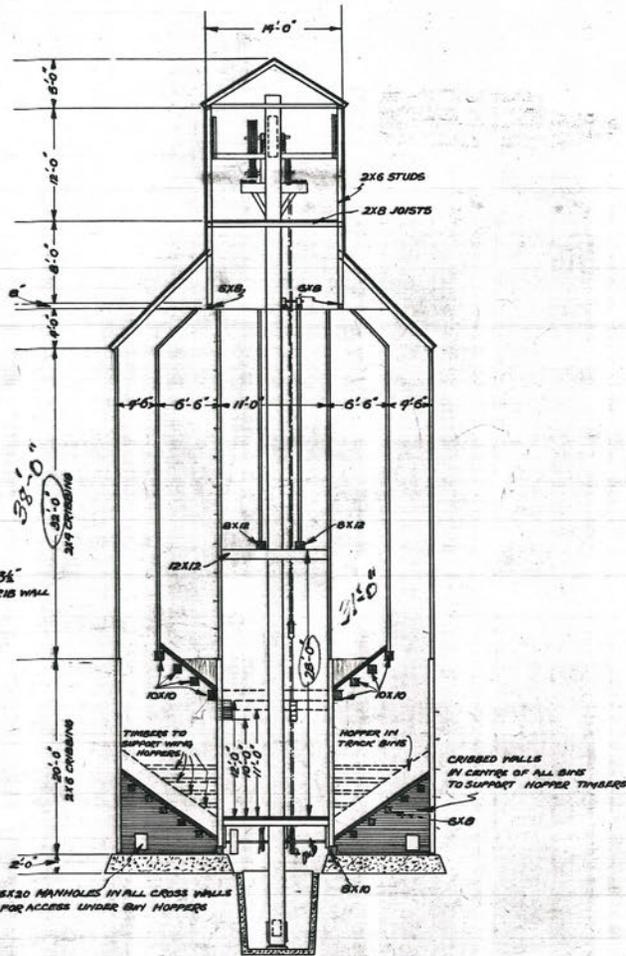


CROSS SECTION



FRONT ELEVATION

DETAIL OF FLASHING FOR ALL
BIN HOPPER BOTTOMS



CROSS SECTION

CROSS SECTION

35000 BUSHEL ELEVATOR

SASKATCHEWAN POOL ELEVATORS LTD

REGINA SASK

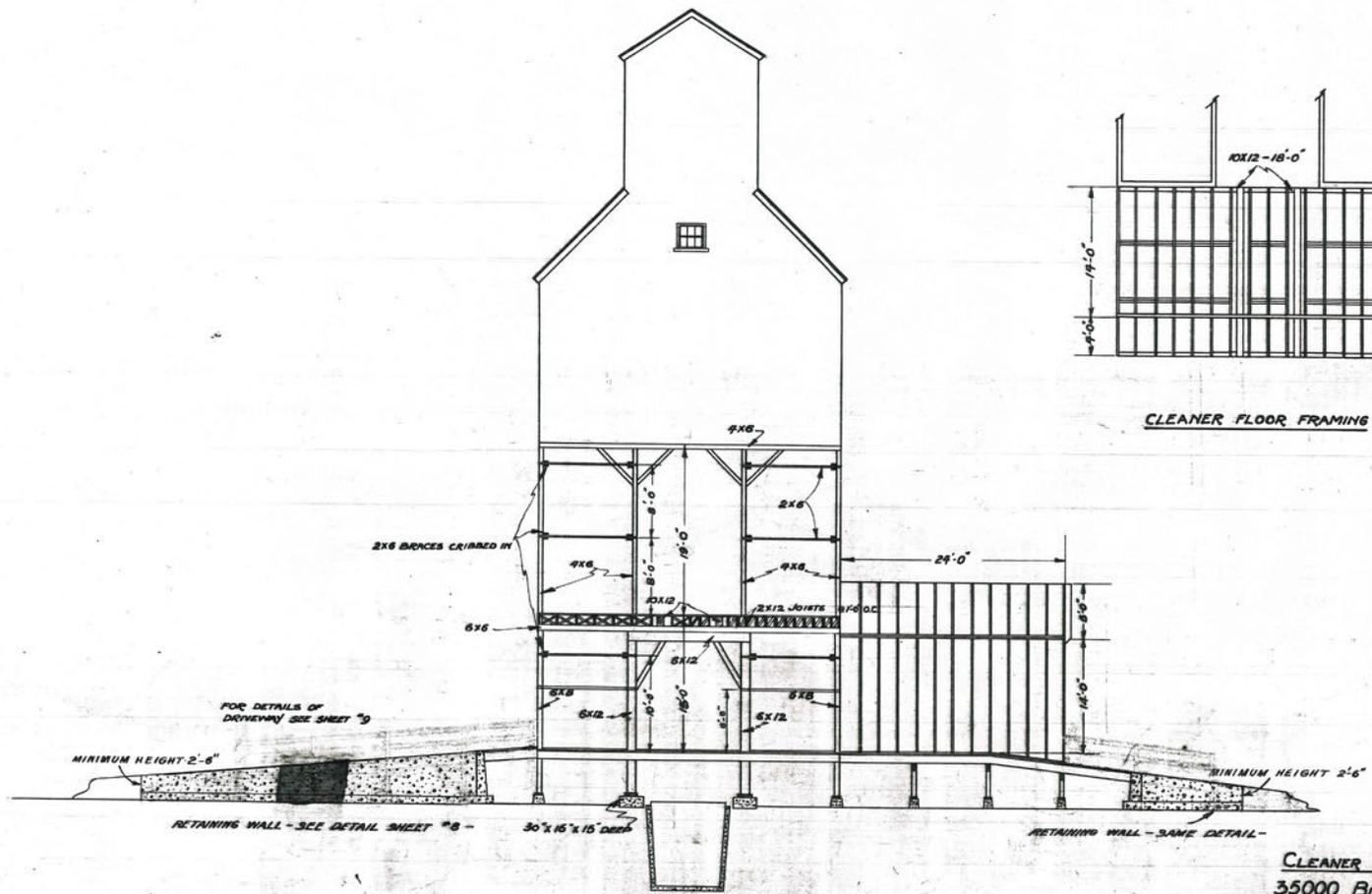
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APPROVED *M. Spatt*
CHIEF ENGINEER

SCALE 1/8"=1'-0" SHEET No. 3

F-45P

M 33



DRIVEWAY ELEVATION & CLEANER SUPPORTS

CLEANER FLOOR FRAMING

CLEANER SHED FRAMING
35000 BUSHEL ELEVATOR

SASKATCHEWAN POOL ELEVATORS LTD.
REGINA SASK.
DRAWN BY - KJW TRACED BY - KJW FEB 17-1930

APPROVED
CHIEF ENGINEER

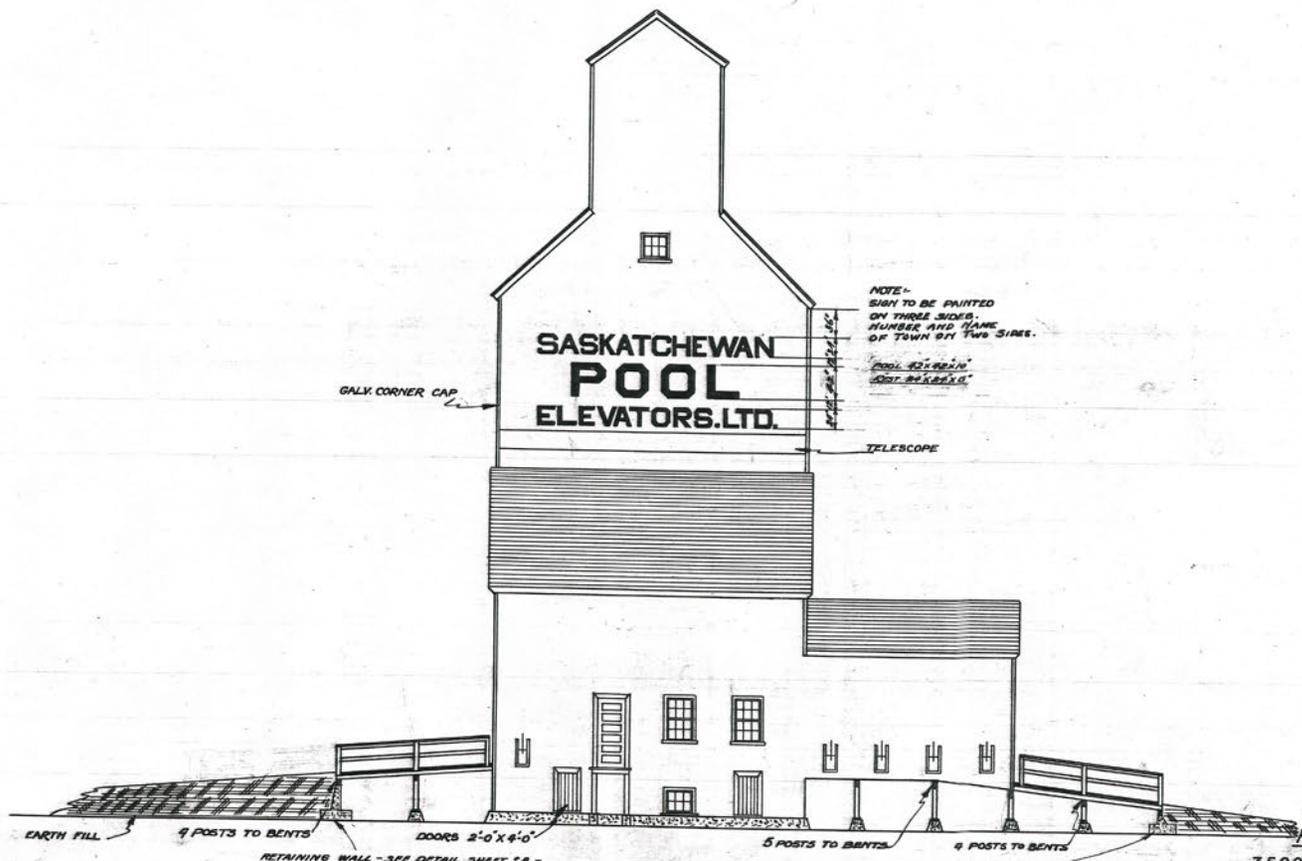
SCALE 1/8" = 1'-0" SHEET No. 4

REVISED APRIL 1947

3/3

F-46-P

M 33



SASKATCHEWAN
POOL
 ELEVATORS.LTD.

NOTE -
 SIGN TO BE PAINTED
 ON THREE SIDES.
 HUNGER AND HANG
 OF TOWN ON TWO SIDES.

POOL 42'-0" X 10'-0"
 DIST. 24'-0" X 10'-0"

TELESCOPE

GALK CORNER CAP

EARTH FILL

9 POSTS TO BENTS

DOORS 2'-0" X 4'-0"

5 POSTS TO BENTS

4 POSTS TO BENTS

RETAINING WALL - SEE DETAIL SHEET "B" -

RETAINING WALL - SAME DETAIL -

FRONT ELEVATION.

FRONT ELEVATION

35000 BUSHEL ELEVATOR

SASKATCHEWAN POOL ELEVATORS LTD.
 REGINA SASK

DRAWN BY - 1916/6 TRACED BY - 1946 FEB 2 - 1930

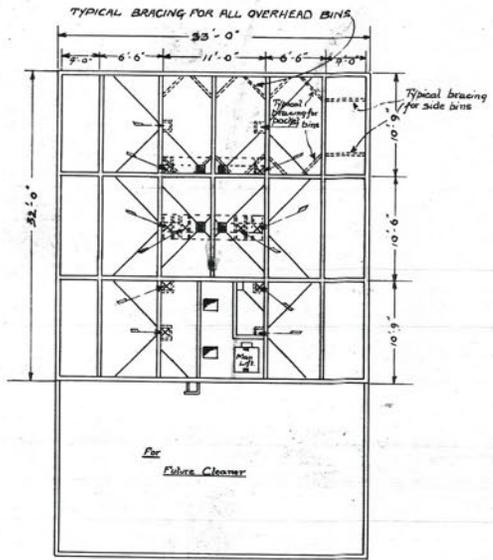
APPROVED *M. Pratt*
 CHIEF ENGINEER

SCALE 1/8" = 1'-0" SHEET No. 5

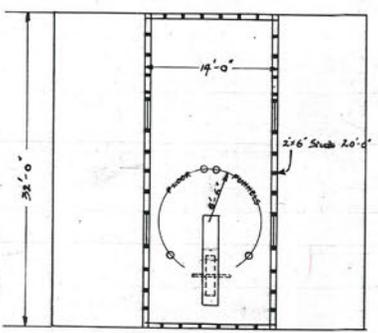
F-43-W

M 33

1/9



BIN PLAN



CUPOLA PLAN

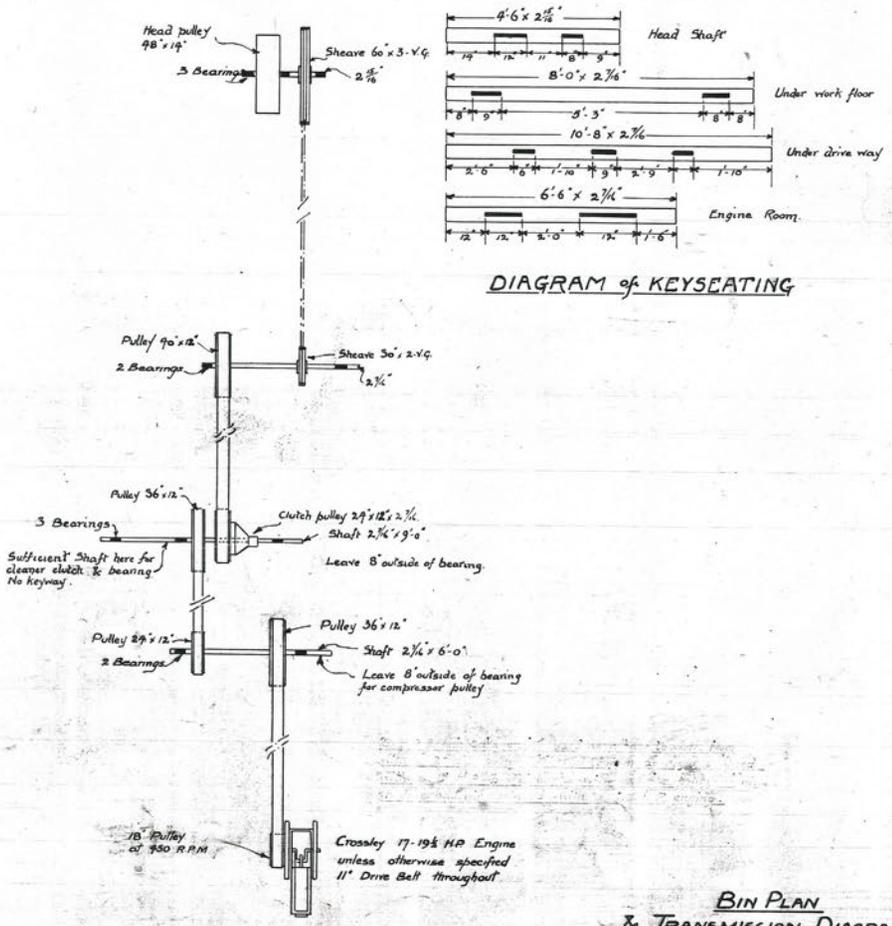


DIAGRAM of KEYSEATING

DIAGRAM of TRANSMISSION.

BIN PLAN
& TRANSMISSION DIAGRAM
35000 BUSHEL ELEVATOR

SASKATCHEWAN POOL ELEVATORS LTD.

DRAWN - MAR 25 - 1929 REGINA SASK

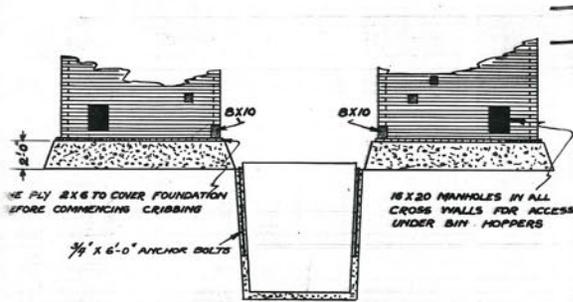
APPROVED

CHIEF ENGINEER SHEET 7

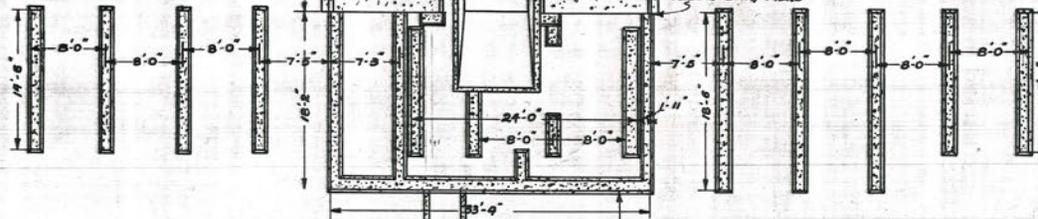
SCALE 1/8" = 1'-0"

F-14-P

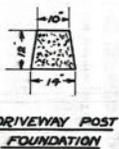
M 24



CROSS SECTION
SHOWING BOOT TANK & FOUNDATION TIMBERS
SCALE 3/16" = 1'-0"



PLAN SHOWING LOCATION
OF ENGINE HOUSE
SCALE 1/8" = 1'-0"



DRIVEWAY POST
FOUNDATION



SCALE FOUNDATION



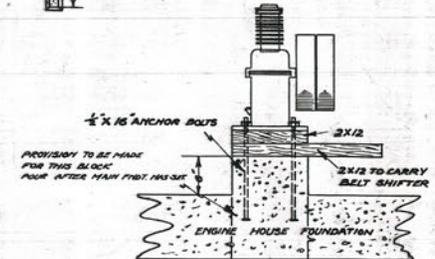
OIL HOUSE
FOUNDATION 8" THICK

REINFORCING IRON PUT IN WHILE CONCRETE IS SOFT & SECURELY FASTENED

ENGINE HOUSE FOUNDATION 10" THICK

REINFORCING IRON PUT IN CONCRETE ON FOUR SIDES

PLAN OF FOUNDATION



DETAIL OF INSTALLATION OF
AIR COMPRESSOR
SCALE 1" = 1'-0"

FOUNDATION PLAN
35000 BUSHEL ELEVATOR

SASKATCHEWAN POOL ELEVATORS LTD.

REGINA SASK

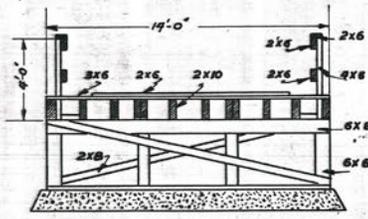
DRAWN BY - JMK TRACED BY - JMK MAR 25-1950

APPROVED M. Whitt
CHIEF ENGINEER

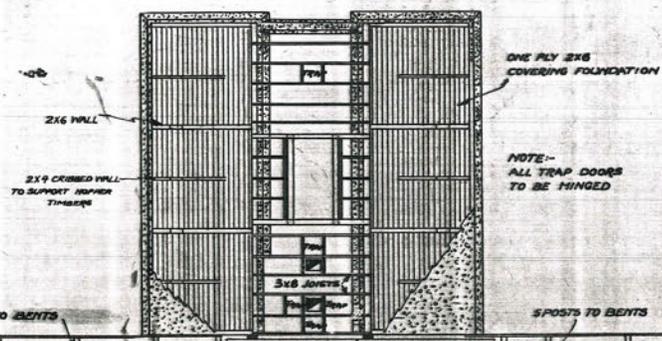
SCALE 1/8" = 1'-0" SHEET No. B

F-44-6L

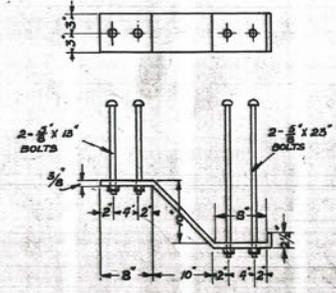
M 33



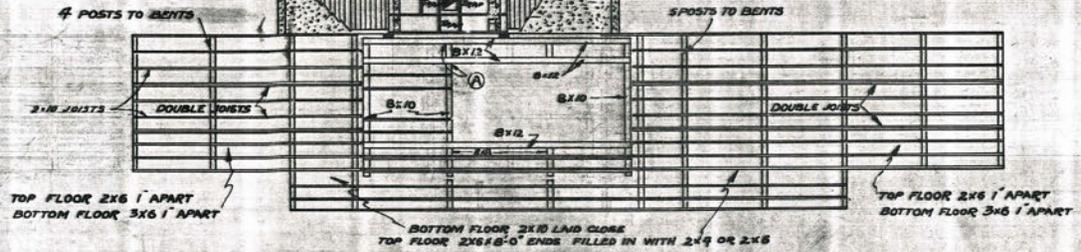
CROSS SECTION OF DRIVEWAY



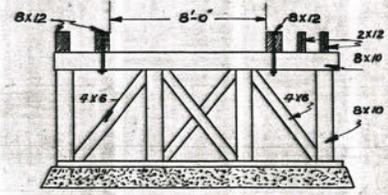
ONE PLY 2x6 COVERING FOUNDATION
NOTE-- ALL TRAP DOORS TO BE HINGED



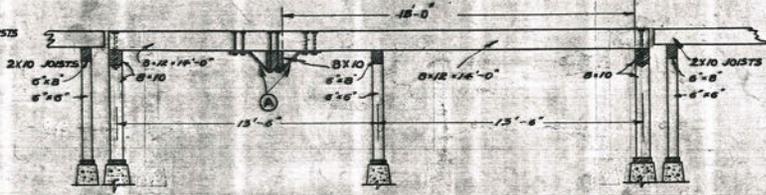
DETAIL OF IRON BRACES MARKED (A)
6 X 7/8 BAR
3 THUS



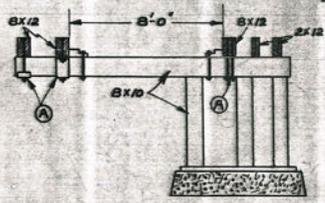
PLAN SHOWING FRAMING



DETAIL OF SCALE BENT



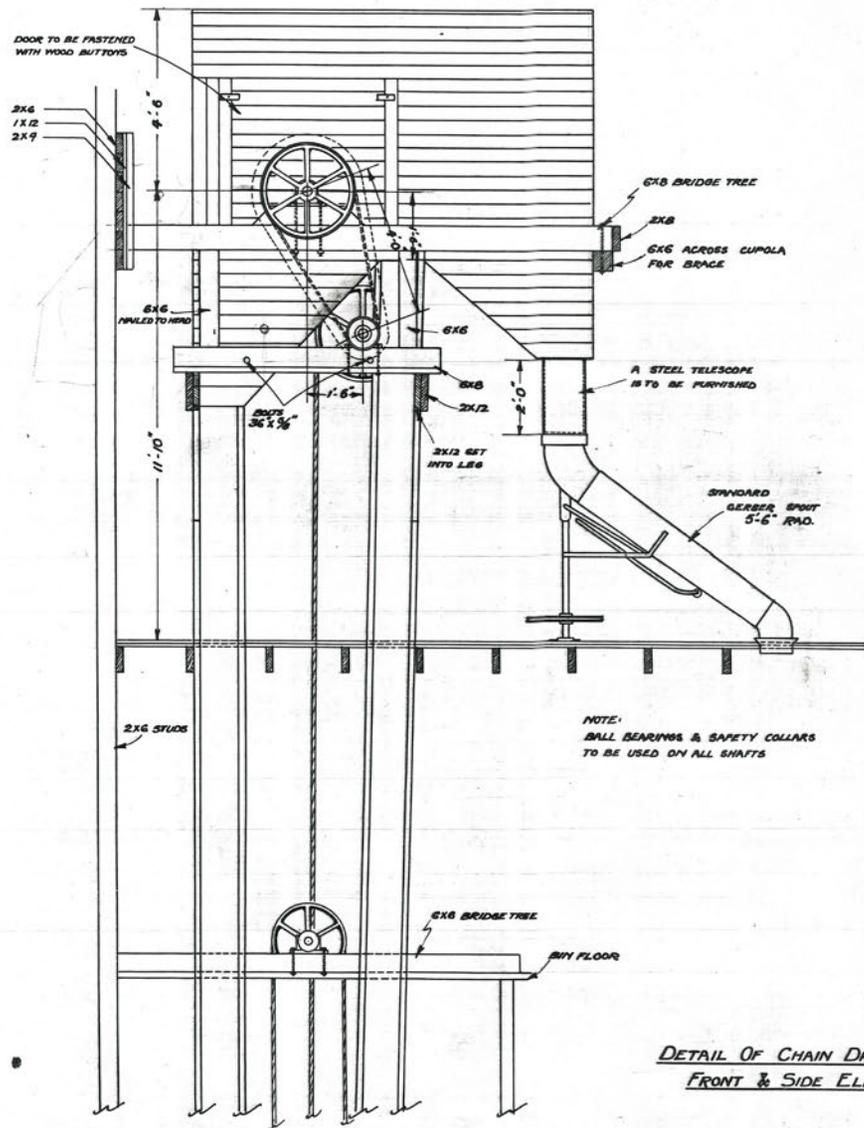
SIDE VIEW OF SCALE FRAMING



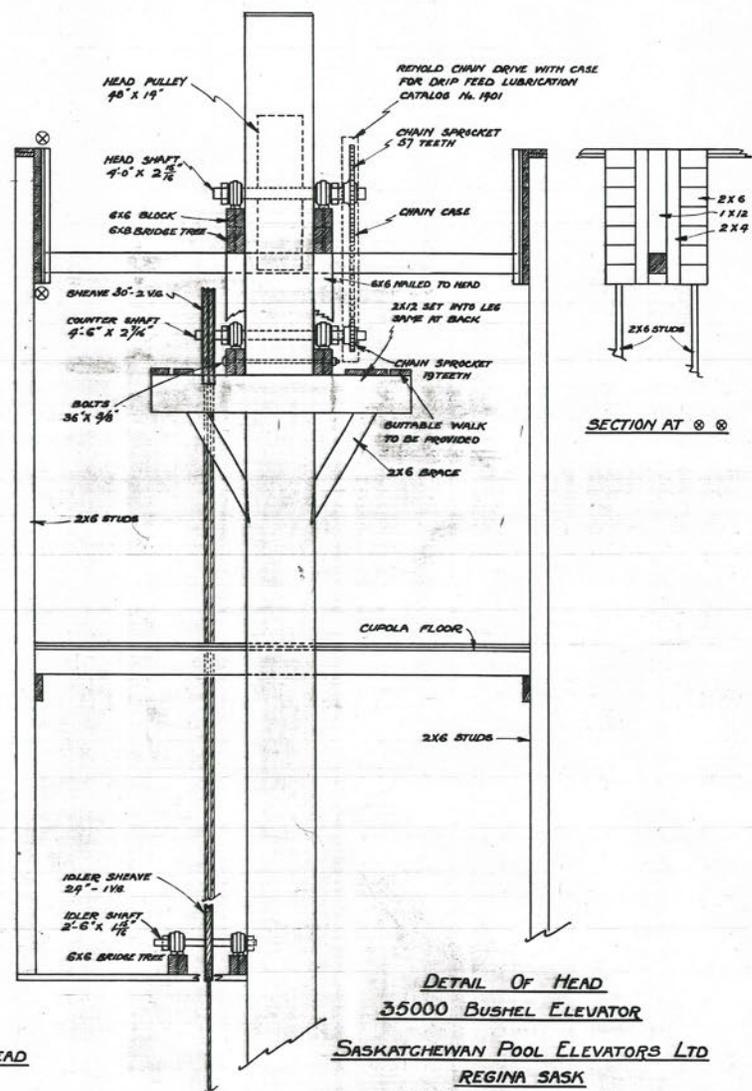
DETAIL OF SCALE BENT OVER PIT

WORK FLOOR FRAMING
35000 BUSHEL ELEVATOR
SASKATCHEWAN POOL ELEVATORS LTD.
REGINA SASK.
DRAWN BY-1346 TRACED BY-1316 FEB 10-1930 7/9
APPROVED *M. Matt*
CHIEF ENGINEER
SCALE 1/8" = 1'-0" SHEET No. 9

F-48-P M3

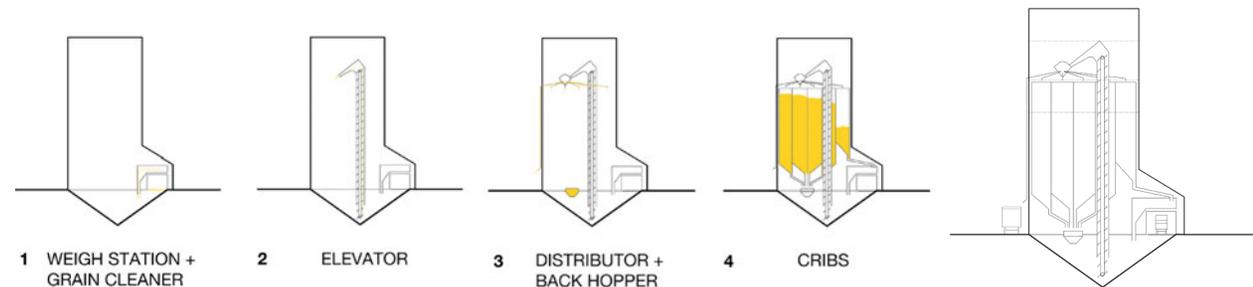


**DETAIL OF CHAIN DRIVE & HEAD
FRONT & SIDE ELEVATIONS**



**DETAIL OF HEAD
35000 BUSHEL ELEVATOR
SASKATCHEWAN POOL ELEVATORS LTD
REGINA SASK
DRAWN BY: *SM* TRACED BY: *SM* FEB 21-1930
APPROVED: *M. Smith*
CHIEF ENGINEER
SCALE 1/2" = 1'-0" SHEET No. 10 Issue A**

Appendix B - Grain Processing: form + function



Grain processing functional form (Piwowar “Mapping Wooden Grain Elevators in Saskatchewan”)

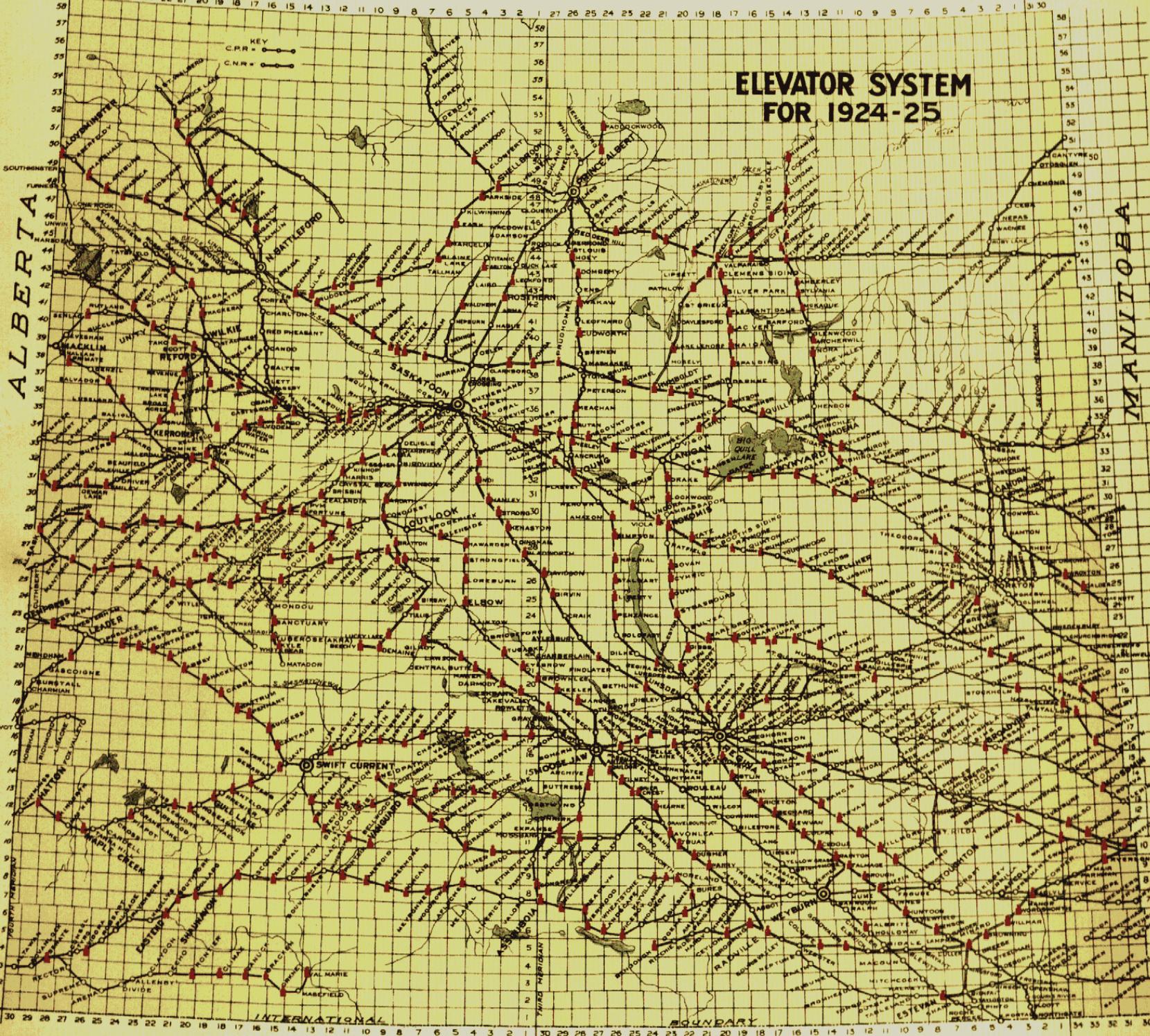
The truck enters the wooden elevator up the ramp from the west side and parks directly over the hopper below. The hopper is a funnel shaped space designed to allow gravity to filter the grain to a single point at the very bottom. The truck dumps the grain into the hopper where the elevating mechanism—known as the leg—using a continuous belt and scoops lifts the grain to the top of the elevator. The elevator operator selects the desired bin by rotating a large crank on the main level that controls the distributor at the top of the leg. The grain enters the distributor that has been lined up with the spout to the desired bin and the grain begins to fill the bin. The entire process for a single grain truck takes approximately 45 minutes in the Indian Head elevator. When the grain is ready to be shipped out by railcar or grain truck, the bin is emptied into the hopper scale weighing the grain again to ensure proper amount will be exported. Once weighed, the grain continues its decent back into the hopper below where the leg once again brings the grain to the top distributes it directly to the awaiting railcar. The grain in the wooden elevator will be cycled vertically through the structure at least two times (once on arrival and once on departure).

Appendix C - Elevator System Maps



The railways played a critical role in the development and expansion of the wooden crib grain elevators across the province. The following three pages are large-scale maps of the elevator system in Saskatchewan during the indicated years.

ELEVATOR SYSTEM FOR 1924-25





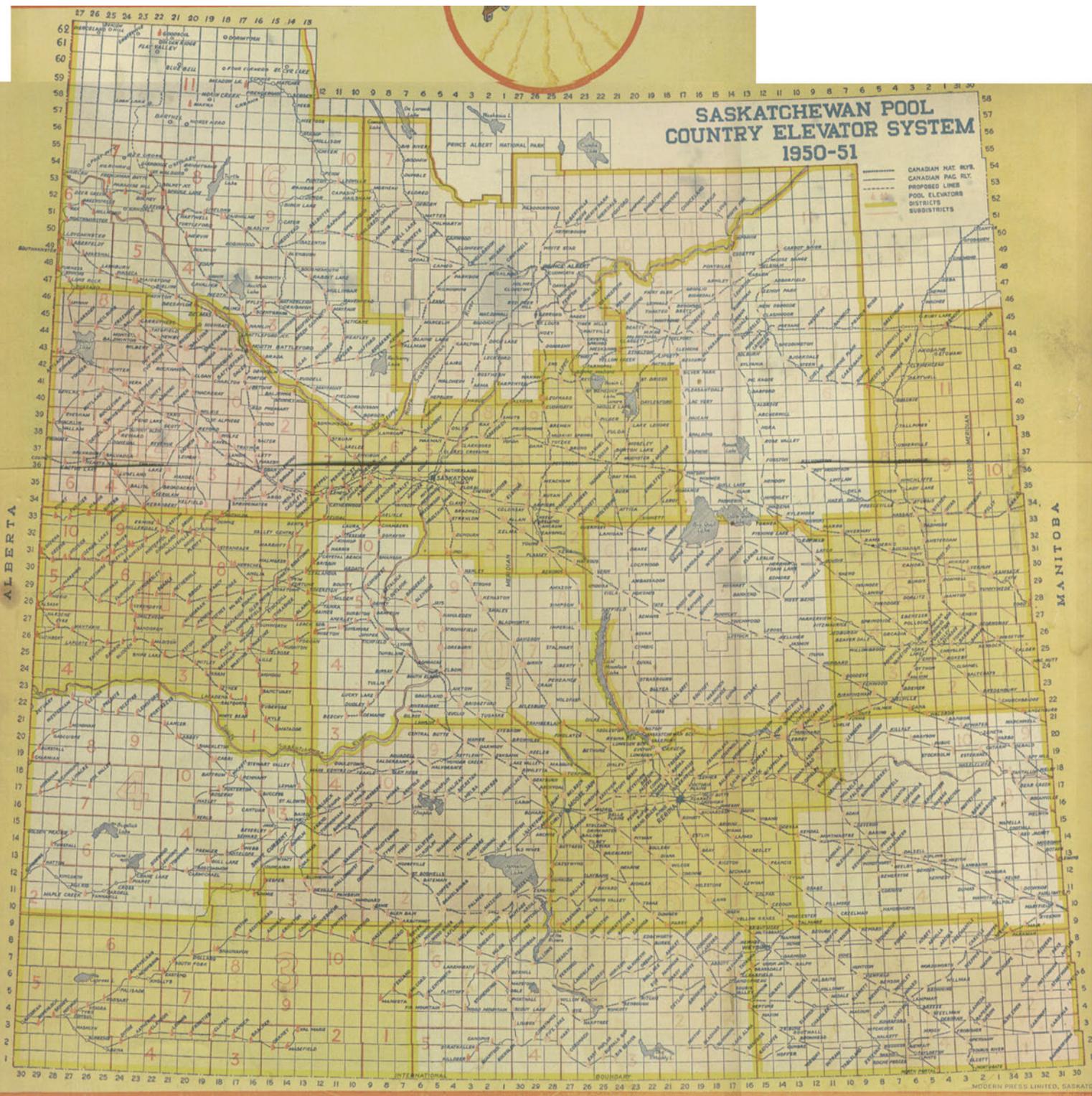
SASKATCHEWAN POOL COUNTRY ELEVATOR SYSTEM 1947-48

- CANADIAN NAT. RY.
- CANADIAN PAC. RY.
- - - PROPOSED LINES
- ▲ POOL ELEVATORS
- DISTRICTS
- SUBDISTRICTS

ALBERTA

MANITOBA

INTERNATIONAL BOUNDARY



SASKATCHEWAN POOL COUNTRY ELEVATOR SYSTEM 1950-51

- CANADIAN NAT. RY.
- CANADIAN PAC. RY.
- PROPOSED LINES
- POOL ELEVATORS
- DISTRICT BOUNDARIES

ALBERTA

MANITOBA

Appendix D - Going Places Tourism Saskatchewan Winter 2015 Newsletter

Mary Taylor-Ash, CEO of Tourism Saskatchewan wrote about Ali's Heritage Saskatchewan 2015 Forum presentation in the industry newsletter.



Going Places • Winter 2015 • 3



MESSAGE FROM THE CEO

Recently, I attended the 2015 Heritage Saskatchewan Forum in Regina. This event marked the end of Heritage Week in Saskatchewan, celebrated from February 16-21. The theme of the forum was *Living Heritage: the Heart of the Community* - a theme that fits so well with tourism. What a great assembly! I enjoyed meeting delegates from across the province and appreciated the informative presentations. It was especially encouraging to hear young people speak about their work on heritage projects.

I was particularly intrigued by Ali Prowosz, an architectural student whose focus is on adaptive reuse of the iconic grain elevator. Imagine the positive effect and the pride and spirit restored by making these structures a place for community use and social gathering.

Kristin Gatherwood was another speaker who impressed me. I was delighted to hear her talk about how she uncovered her pride for her home by travelling elsewhere to study folklore. Kristin has now returned to Saskatchewan and is dedicated to gathering intangible heritage before these valuable links to the past are lost. Besides continuing her research and working as a freelance writer, she is keeping history and stories alive in her hometown.

The Heritage Saskatchewan Forum was truly motivating. I was touched by the stories told by people who love where they live and are excited to share their home with visitors.

In February, I also had the pleasure of introducing the new *Saskatchewanderer*, Ashlyn George, another dynamic young resident unashamedly proud of her Saskatchewan roots. Ashlyn is a globetrotter and has visited more than 300 cities in 37 countries. She brings a unique perspective to the role of *Saskatchewanderer* and is a bold adventurer. Through the power of social media, her lively and entertaining accounts of travelling our province will be shared with audiences the world over.

The stories of this remarkable place fascinate me. Still a relatively new Saskatchewanian, I learn so much about my new home from the people I encounter everyday - my co-workers and those in the industry who have welcomed me to their communities and shared their personal accounts of what Saskatchewan means to them.

Research conducted by Tourism Saskatchewan over the past six months has shed light on the deep roots and attachments residents, past and present, as well as visitors form with this province, and on the characteristics that have a profound and lasting effect on people. This research has been a critical part of the work to determine our tourism identity, pinpoint a brand essence and develop a compelling marketing campaign that will enhance our competitive position.

As I write, the final touches are being made to a campaign that captures what it is about Saskatchewan that touches people to the core, that connects people across great distances and that forms enduring bonds and memories.

Each element of this campaign is aligned with the priorities identified in our strategic plan and shaped by the comprehensive research undertaken. Planning for the long term has been top-of-mind. This new marketing direction will determine the course of action for the next five years. My colleagues and I are confident that the campaign themes, images and components will resonate with travellers and position Saskatchewan as a destination of choice for more and more travellers.

Delegates attending the HOST Saskatchewan Conference on April 16-17 in Saskatoon will be the first to hear and see the exciting new marketing direction for our province. In addition to the unveiling of the campaign, there will be a number of informative presentations that will benefit industry. The conference will be a time for networking and building on the strengths and camaraderie of Saskatchewan's tourism community.

On the evening of April 16, all eyes and focus will be on the "stars" of the industry - finalists honour of at the 26th annual Saskatchewan Tourism Awards of Excellence Gala.

I look forward to seeing you there.

Mary Taylor-Ash

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Appendix E - Correspondance with Dr. Shauneen Pete regarding the First Nations Perspective of the Wooden Grain Elevators

Below is the email correspondance with Dr. Shauneen Pete, Associate Professor in Aboriginal Education at the University of Regina, with respect to the First Nations Perspective of wooden grain elevators.

> Shauneen Pete 2014.11.17 3:22 PM >

“HI Joe, thank you for the introduction. Greetings Ali. I tried to call my dad with this question but he is in a meeting this afternoon. I can respond in this way:

My grandfather, Ernest Pete lived on Little Pine First Nation, not far from North Battleford. Our reserve is in a small valley but extends out onto the flat prairie. My grandfather, like many First Nations men at that time, was a farmer. You see the reserve system had been set up to provide First Nations peoples with a protected land base from which to live and participate in a changing economy.

During the signing of Treaty 6 First Nations peoples negotiated for farm training and equipment that would allow them to participate in the economy differently. The Indian people at my reserve were provided with a small section of land; and under treaty they were able to access seed, shared implements and instruction from a farm instructor. Like his father Anthony, my grandfather raised cattle, and grew grain (wheat, barley and oats). However, up until almost 1950 Indian Affairs enforced a pass and permit system to control the movement of First Nations peoples. This meant that when my grandfather wanted to sell his grain, he had to ask the Indian Agent for permission to, in the form of a permit. In order to transport the grain he needed a pass to leave the reserve. I've attached examples

of permit/pass.

The story goes that the Indian Agent socialized with the other white men in town (Paynton) and they were part of the same service clubs. The Indian Agent in his powerful position could curtail the applications of the First Nations farmers by limiting their ability to leave the reserve to sell their grain. He did so through the careful denial of both passes and permits to the Indian farmers; thus privileging the White farmers in the area who were able to sell their grain, unencumbered by either pass/permit. These white farmers were often able to sell their grain when the prices were better and the quality of grain higher. Indian farmers would have to store their grain until such time that they were granted the pass to leave the reserve/permit to sell. And even when they had the pass/permit in hand they did not receive equal treatment from the Elevator managers. They were made to wait in a separate line-up; to wait until white farmers did their business before they were even considered. I understand that on more than one occasion, after earning his pass/permit and standing in line all day; my grandfather was turned back and told to come back another day.

The iconic prairie grain elevators served as a reminder of another way that the government, Indian Agent and his friends had power over Indian men. The elevator was the physical reminder that meritocracy was limited to only certain groups (with access to power) and that the structural barriers to fuller participation in the economy were very real for First Nations peoples.

I have also attached an chapter by Sarah Carter that contextualizes the farming experience for First Nations peoples.

I hope that small story helps. Shauneen

Associate Professor (Aboriginal Education) & Executive Lead:
Indigenization
University of Regina
(306) 585-4518

> Shauneen Pete 2014.11.20 3:13 PM>

Tansi Ali,

I am thankful for the conversation of these matters. When I was a girl my grandmother was in the hospital, and I was sitting in the “sun room” at the end of the hall waiting for my parents to finish a conversation with the nursing staff. As I waited for them I was thumbing through a regional Centennial Project book about Maidstone, Paynton, Delmas etc (the towns near to my reserve). I found an image in the book that was surprising: it was of a small village of Black people. There were groups of Oklahoma Blacks that had immigrated to the Prairies in the late 1800’s. Some of them had settled near Maidstone. I believe their little town was called Shiloh. Like the First Nations farmers who were restricted from participating in farming in more intense ways, the Black community were also experiencing forms of oppression. They too were not allowed to sell their grains like white farmers. The story goes that many of the farmers in the area were organizing to establish grain growing associations. Many of these members were also joining ranks with the emerging KKK organization in the area. The Blacks in the district were driven out by the combination of economic restrictions and threats of violence. Many moved to Edmonton or further west; while some families moved to North Battleford.

The grain growers association played a role in the maintenance of unearned privilege toward white settlers. I share the story so that it can become more widely recognized in the Prairies and across Canada. Meritocracy was only granted to those closer to the dominant group. This part of our history counters the dominant narrative that Canada, and Canadians are kind, generous, good and welcoming. It counteracts the narrative of multiculturalism that we hold so dear.

I reference Bruce Shepherd’s book, Deemed Unsuitable here. I would welcome you sharing the stories that I have shared with your

committee; you may also use them in your thesis. I wish you the best of luck in the process. Please feel free to remain in touch. I welcome additional questions. Shauneen

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